THE CULTIVATOR.

NEW "TO IMPROVE THE SOIL AND MIND." SERIES.

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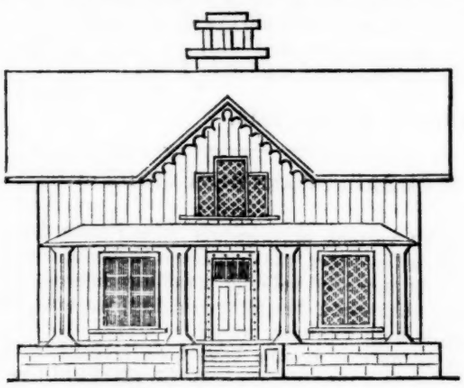
RURAL ARCHITECTURE.

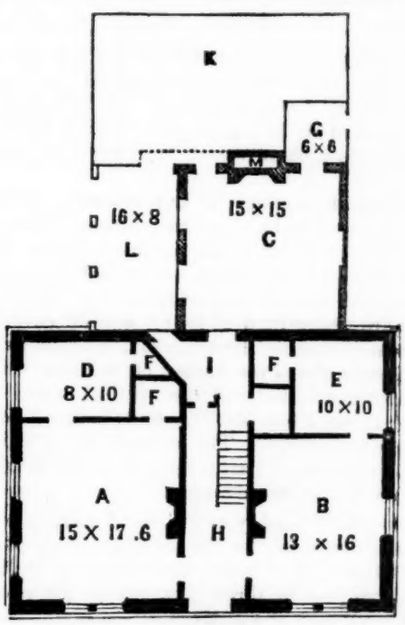
EDITORS CULTIVATOR—In your favor of the 7th inst., you extend to me an invitation to send an article for the Cultivator. It is entirely a new business to me, and I may fail in sending you anything that you will think worthy of insertion. Should this be the case, you will do me a favor not to use it. In looking for a subject, my mind fixed upon two or three, which I deem of general interest. These were Roads, Fences, and Buildings. Having several plans of dwelling houses in my memorandum book, I have selected one, and at-



ELEVATION.—Fig. 18.

tempted to give you a draft of it. I am not a mechanic, and feel that I am laying myself open to criticism. I have been led, perhaps, to select this subject from having recently re-perused Mr. DOWNING's works on Cottage Residences and Landscape Gardening, in which works I have been much interested. I have access to no works treating on the same subject that I read with more satisfaction. I like them better than Loudon's, because they are better adapted to our own country. But still it seems to me there is something needed to meet the wants of the mechanic and farming community—I mean the working portion—men who manage their own tools, and work their own farms. Mr. DOWNING's Designs and Plans are too expensive for general use among this class of persons; they will do for what are termed gentlemen farmers, and mechanics who work, if at all, in gloves; but we want something for the industrious working man. A man who has a farm of fifty or one hundred acres, worth $30 to $40 per acre, does not like to expend 12, 15, or $2,500 in building a dwelling house; and if he is a prudent man, will not do it; and yet, he wants a comfortable home, and deserves it as much as any one. Of a hundred dwelling houses, in view from where I am now writing, perhaps not more than fifteen or twenty would be considered worth over $1000; and these, I should judge, are rather above the average of our country. This, I think, shows, that a work containing designs of a less expensive character is needed to meet the wants of a large portion of our population.

Mr. DOWNING, in an article published in the Sept. number of the Horticulturist, complains of the manner in which the Grecian and other styles of architecture have been misapplied in this country, and says he now "sees strong symptoms of another disease manifesting itself,"

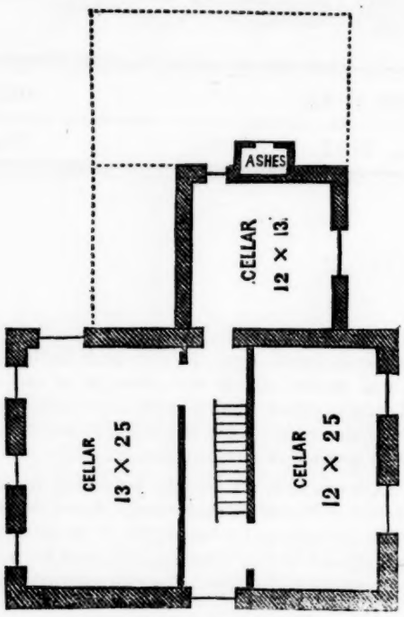


PRINCIPAL FLOOR.—Fig. 19.

A. Parlor.—B. Sitting-room—C. Kitchen—D. and E. bed-rooms—F. Closets—G. Pantry—H. Hall—I. Back Hall, lighted from sash door—K. Wood-house—L. Stoop—M. Ashes.

&c., alluding to the rural Gothic style of building, as now practiced among us. Hasnot his work on Cottage Residences had this very effect to some extent. Persons have seen his work and designs, and have been pleased with them, and in building have endeavored to imitate them; but not feeling able to fully adopt his plans and carry them out, they have tried to introduce some of his suggestions in a cheap way, and have thus produced the specimens of bad taste to which he alludes. For one, I do not wish to see any particular style generally adopted. It would not comport with our heterogeneous population, or our great variety of

scenery. We want variety—plans fitted for various locations, and this can be arrived at better by using a variety of style. In connection with the work published by Mr. DOWNING, is there not wanting another, to furnish that portion of the community to which I have referred, and who can better supply it than Mr. D. himself?

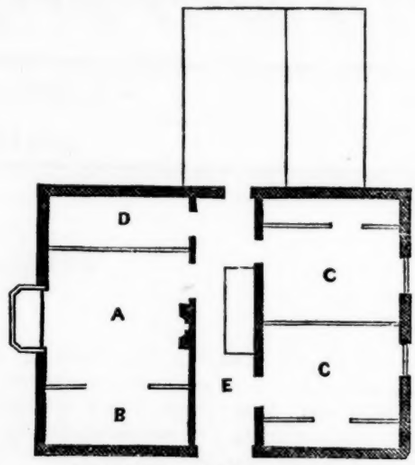


CELLAR.—Fig. 20.

In looking over the buildings now in my view, I should judge they would average about the size of the plan of the one I now send you. It is designed for a family of from six to ten persons; and I think the arrangement is such as would be convenient and desirable.

In different portions of our country, different materials are used in building, and different uses are made of the same materials. At the west, there are many buildings put up with what are called balloon frames, covered with boards and clapboards. With us clapboards are generally used as an outside covering upon the ordinary timber frame. Mr. ELLSWORTH highly recommends the *Pise houses* of unburnt brick. Mr. DOWNING has introduced the vertical board covering. Among these, I like Mr. D.'s best, both as to the appearance and utility. The main objection to it is, that it is too expensive, particularly if it is filled in with brick, as Mr. D. recommends.

In the plan I send, you will see I have adopted Mr. Downing's covering for the outside, but propose to use it as follows: Let the cellar walls be built up with stone from two to three feet above the ground, putting a good coat of water cement on top of the wall to prevent dampness from arising—then lay up the walls of unburnt brick, as recommended by Mr. Ellsworth, in his Report on Patents for the year 1844, putting in scantling 3 by 4 inches, on the outside, once in three feet, around the entire building, to nail the vertical boarding to, when the walls are finished. This embraces part of Mr. Downing's and part of Mr. Ellsworth's improvements. The objection I have to Mr. E.'s covering of cement, is the difficulty of making it stand our climate. Using Mr. D.'s covering, obviates this objection, and in combining the two we have something about as near perfect as we can look for. You will observe, also, that it is cheaper than a frame of timber, as all the timber that is necessary to use is the joists for flooring, and the scantling outside, until you reach the plates. The expense of walls of unburnt brick is about six cents per cubic foot. The two principal partitions should be of unburnt brick, six inches thick, to be carried from the cellar to the roof, plastering inside immediately upon the brick. This saves more than one-half the expense of plastering. In such a building, we have the advantages of its being warm, dry, and clean. It is warmer than brick or stone, be-



CHAMBER FLOOR.—Fig. 21.

A. Chamber, 14 x 15—B. Recess for bed, opening into A—C. Bed Rooms with closets, 9 x 13—D. Closet opening into Hall—E. Hall.

cause a better non-conductor of cold, or than wood alone, because tighter. Another advantage in such a wall is, that no rats, mice, or other vermin, can get within the walls; as they almost always do in every house where studding, or furring and lath, are used. I think such a house can be built for $600 or $800.

H. OF ONEIDA CO.

Clinton, Dec. 31, 1846.

THE CHEAPEST AND BEST MODE OF BUILDING.

FROM various experiments which have been made within a few years, the evidence is becoming strong, that the best mode of building dwelling houses, for combining cheapness, durability, solidity, warmth, and dryness, is with UNBURNT BRICK.

A number of houses have been erected with great success with this material, at the village of Geneva, in western New-York, within a few years; and their superiority has also been proved at Chicago, as appears from an able and interesting communication on this subject, which appeared a few weeks since in the Prairie Farmer. In both these localities, the cheapness, as well as other advantages, which, from the statements of different builders, nearly agree, are very apparent and striking.

These houses being of a more porous material than stone or brick, are much warmer, and less subject to dampness, and not being lathed internally, except on a part of the partition walls, afford very few hiding places for rats and mice. They are also far less liable to destruction by fires for the same reason. In order that their advantages may be more fully understood, a brief statement of the mode of erection may be useful.

The bricks are made of goud clay, with which a small portion of sand must be mixed, the quantity of which will vary with the purity of the clay. Straw or coarse grass is then chopped with an axe about six inches long, and worked in with the clay. A yoke of oxen will work a bed of clay in about four hours sufficient to give employment to two active men in making the brick for a day. The size of the brick is usually quite large, or six inches thick, one foot wide, and fifteen inches long. At Chicago they are usually made eighteen inches long,

with a few a foot long to break joints, &c. There are two modes of loosening the bricks from the mould. One is to have a sliding bottom; the other, and perhaps the best, is to have a narrow slit or opening at each end of the bottom, which admit air, so that when inverted the brick readily falls out from its own weight. The side pieces should project beyond the ends, to receive cross rods for handles. Two men will make three hundred in a day. They soon become dry enough to be set on edge, then on end, and lastly in piles one above another, the asperities of the surface admitting freely the circulation of the air between them. In a few weeks, if in summer, they will be hard, tough, and dry enough to lay in the wall. The mortar is made of the same material as the brick, and cements the wall firmly together. The building may be very expeditiously performed.

The walls must in all cases be laid on stone or hard brick underpinning or cellar wall, and should commence two feet above the surface of the ground. The partition walls may be made of unburnt brick, six or eight inches thick, but if a cellar is beneath, or otherwise, partition walls of stone or hard brick, must invariably form the foundation. A fine house in Chicago, where a cellar could not be dug, had all the partitions of the same material, so that neither rats and mice, nor fire, could pass from one room to another except through the doors. A *cellar* adjoining was built on the surface of the ground, three feet lower than the main floor, and in addition to the exterior wall a foot thick, it had another within, six inches thick, enclosing an intermediate space of air. It never froze in winter, and formed an admirable cellar.

The wood work is connected with the walls according to the usual mode in brick and stone houses, and the unburnt bricks receive and hold firmly all nails driven into them.

The plastering on the inside, which is applied directly to the walls, must be quickly finished, as it dries with great rapidity. After the building has stood one year or more, a coat of plastering, similar to that given to other brick and stone houses, is applied outside, which, if well done, and of good material, forms a handsome finish.

According to the article in the Prairie Farmer, the cost of the wall itself, compared with that of a common brick wall of equal thickness, is as 5 or 5½ to 14 or 15; or but little more than one third. As lathing the interior is obviated, the cost of the inner plastering is reduced to one-half. And a handsome outside cement is about two-thirds as expensive as three coats of white paint, and needing no subsequent renewing, is less than half as costly in a series of years. An acquaintance who lately erected a house of this kind with accurate bills of outlay, estimates its total cost at two-thirds that of a common wood frame house, and one-half that of a common brick house, while he considers it superior in excellence to either.* He drew the brick one mile to the place of building. Where suitable clay cannot be had within several miles, the increased distance would very slightly augment the expense. T.

WARMING HOUSES.

.....

THE fire place has very generally gone out of use, wherever fuel has become costly, and stoves of various kinds have taken its place.

Though the old brick fire-place, with its wide throat, consumed large quantities of wood, and sent a large proportion of the heat generated in its combustion up chimney by the powerful draft—it certainly, by that very process, ventilated the apartment in great perfection. The open Franklin stove, was also a good ventilator, and by having its plates exposed on all sides to the air in the room, it saved fuel.

The close stove is defective as a ventilator. All close stoves are upon the same principle, and the modern "air-tight" is only a common close stove *well put together*. Combustion is slow, and but a very small quantity of air is required to support it. The process is to make wood into charcoal, and use the heat thus generated in warming the room—and then consuming the charcoal and diffusing the heat given off in its consumption. This is economy of heat, and is the most perfect mode of making every particle of it available; and if the pipe of the stove is long enough to allow the small quantity of air that is necessary to support combustion, to become as cold as is consistent with its moving at all through the pipe, it may be considered equal to anything now in use for the purpose of saving heat. It is manifest that such a stove does not ventilate the apartment sufficiently to render the atmosphere wholesome, and unless other means are resorted to in order to introduce fresh air, it becomes so impure that headaches follow. The only way is to procure a supply of fresh air, and by appertures near the ceiling let out the impure heated air. This fresh air thus introduced, is cold, and to heat it will cost fuel—and thus if pure air is enjoyed, the great economy of the "air-tight" stove is in a measure counterbalanced, by the necessity of ventilating with cold air.

Thus it is shown that the most common modes of warming buildings are objectionable. One is expensive, the other is destructive of health. The advantages of both may be secured, and their disadvantages avoided by warming and ventillating the house with heated air

I have a furnace in the cellar of my house that accomplishes both these ends—a drawing of a section of which I send you. [*See fig.* 22.]

An air chamber made of brick, the walls eight inches thick, and arched over at the top—five feet four inches long, and three feet wide on the inside, and high enough to allow a stove *B*, with drums, *C*, *C*, to stand on it under the arch. The front end of the stove is even with the outside of the wall, that wood may be introduced, and in the door is a sliding damper, to control the draft. The cold air is introduced into the air chamber at the front end of the stove in such a manner as will bring it directly in contact with the heated surface of the stove. Tin pipes, *D*, *D*, ten inches in diameter, convey the air after it is heated through the floor into the rooms above. At the ends of the pipes in the floors are registers, to regulate the quantity of air admitted into the rooms. The smoke pipe *E*, passes through the top of the arch, surrounded by a pipe, up to the floor, where a sheet of iron, having holes through it, controls the amount of air allowed to enter the room through which the smoke pipe passes. But two air pipes are shown in the drawing, but there are, in fact, six rooms that have hot air introduced into them, besides the hall which is warmed by the smoke pipe. The cold air is brought from the outside of the cellar wall by a brick pipe, *A*, a foot square, passing under the cellar floor. This cold air pipe is so situated that the supply can be regulated by partially closing the outer end. The drums, *C*, *C*, have small doors at *F*, *F*, through which a scraper can be introduced to clear out the ashes and soot, by sending them down through the pipes, *H*, *H*, into the stove. There is in the brick wall at *I*, an iron door opening on the back side of the air-chamber, through which a man can enter.

The operation of this furnace is this: The fire being started in the stove *B*, and heating it, and the drums, the surrounding air is heated and expanded, and by a

* He also stated that during the two years that elapsed from the time the house was built, to the period when the outside plastering was applied, only about one-tenth of an inch of the surface of the brick was beaten off by storms and rain.

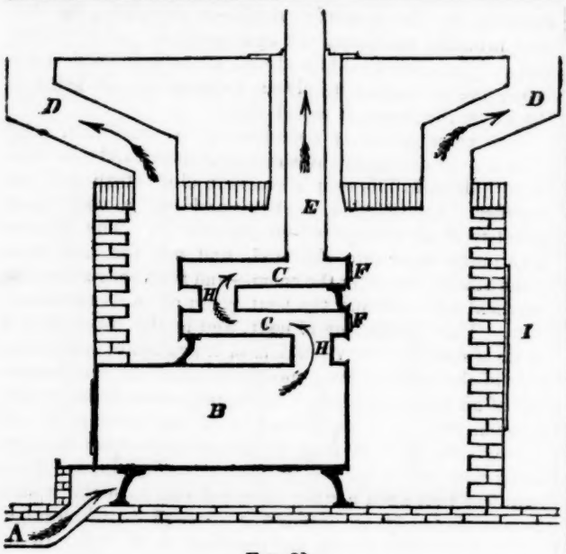


Fig. 22.

well known law, it rises and passes through the pipes *D*, *D*, into the rooms above, where it diffuses itself, and a constant stream coming into the rooms, presses the air until it begins to escape through the cracks around the windows and doors. Thus, instead of having streams of cold air pouring in at all the crevices, air that has been contaminated by use is forced out by the mechanical power of the heated air; and the room is constantly supplied with pure air drawn (not from masses of decaying vegetables in the cellar, but) from out doors.

Before the erection of this furnace, it was necessary to calk the windows, and list the doors, and then suffer with the cold. Candles flared, and it was nearly impossible to be comfortable in cold weather. Now the lights burn straight, and though the thermometer may stand at zero in the open air, there is no difficulty in keeping it at seventy or eighty degrees any where in the lower story of the house, which is fifty feet square.

The coldest weather in winter requires about a cord of seasoned hard wood to warm the house a week.

Having tried fire places and tight stoves, and having had this furnace in use long enough to give it a fair trial, I feel justified in making comparisons between these modes of warming houses. By the furnace, besides warming a large house perfectly, is saved the dust and ashes of the stoves or fire places—the dirt of the wood-boxes, the cleaning of brass fenders, the destruction of furniture, and the labor of constantly mending fires. The stove in my furnace is more than four feet long, and is two feet wide, and two feet high, and the door is large enough to allow the introduction of common cord wood, thus saving sawing and splitting. Wood being put into the stove—the quantity varying with the weather—the damper is closed, and every joint being as close as it is possible to make them—combustion goes on slowly, and the great amount of wood thus burning, gives off sufficient heat; and three fires are generally enough for a day in cold weather. The wood being stored in the cellar, the dirt is kept out of the rooms.

It would be an improvement upon this furnace, to put more drums upon the stove, and to have a stove three feet high, so that there might be a grate made of tubes, passing through the side plates, so that the air in the air chamber could circulate through the grate, and thus save more heat. The front of the stove, instead of being even with the front wall, might be just within the air chamber, and a sheet-iron door in the brick wall opening in front of the stove, would permit the opening of the stove door, and the introduction of wood. By this means the door of the stove would aid in heating the air, and the expansion and contraction of the stove by heating and cooling, would not crack the wall, as it does when the stove is masoned into the wall.

Before erecting my furnace, I made somewhat extensive examinations, for the purpose of procuring information in relation to this matter. I saw many furnaces that but partially answered the object of their erection. The failures were to be ascribed to the attempt to draw a supply of cold air either from the cellar, or from the rooms above, or the tube through which the cold air was brought from out doors was too small—or the air chamber was very large. Every furnace that worked well that came under my observation, was supplied with cold air from the outside of the building by a pipe of at least eight inches square.

Large stoves, and large pipes to convey the heated air are preferable—as thereby a great quantity of air moderately heated will be conveyed to the rooms. Where small stoves and small pipes are used, the fire must be intense, and the plates of the stove must be made very hot, and consequently excessively heat the small quantity of air that comes in contact with them.

The impurities that float in the air thus undergo changes that render them anything but pleasant to the senses. GEO. GEDDES.

Fairmount, N. Y., Jan. 1847.

LARGE FARMING ON A SMALL SCALE.

THE first premium on farms, of the Middlesex (Mass.) Agricultural Society, was awarded the past season to Amos Carlton, of Chelmsford. The manner in which he has, in the space of a few years, brought a farm of twenty-eight acres, mostly covered with woods, birches, and alders, and huge rocks, to a state of high cultivation, so as to yield several hundred dollars worth of farm products yearly, can hardly fail to be interesting.

Twelve years ago, when he purchased it, there were but seven acres; the other twenty-one he has bought at different times since. The soil is a hard gravelly loam, very stony; not one acre could be turned smooth with the plow. Improvement was commenced on an acre and a half, by digging out stone enough to fence it with double wall. Since he has had the place, he has laid about 430 rods of wall. He formerly bought some manure, but now thinks he can make it cheaper. He finds meadow mud, well mixed with a seventh part ashes, and a quarter stable manure, quite as good as clear stable manure. At first he had but two cows and one horse; now, by the improvement in the fertility of the land, he keeps one horse, four cows in summer, and five or six in winter, with three heifers, and three pigs.

He cut eighteen tons of hay the past season from his meadow. Three years since he built a barn and carriage house, which was forty by forty-eight feet, "which," he says, "I then thought was larger than I should ever fill; but I have this year had to add twelve feet more to one end."

He has given much attention to fruit. The original orchard of natural trees he grafted, and they are now in full bearing condition, and he gets four times as much good fruit as he did before of bad. In 1845, he had 120 barrels of apples; in 1846, about 80, and 10 or 12 bushels of quinces, besides a fine supply of peaches, cherries, grapes, &c.

The amount paid for labor, including wall-building, has, of late years, been about 140 dollars per year. The produce *sold*, according to account, was, for 1845, including fruit, milk, hay, &c., 641 dollars 25 cents. About one quarter of his 26 acres is covered with rocks.

This account is condensed from his statement to the committee of the agricultural society, who examined the farm, as published in the Boston Courier. T.

EMIGRATION TO VIRGINIA—FAIRFAX COUNTY LANDS.—By an Emigrant.

It was at the close of a bleak, windy, and gloomy October day—the temperature below the freezing point—and the elements giving legible tokens of the approach of the dreary and almost interminable northern winter, that with my family and a goodly assortment of carpet-bags, which we had contrived to substitute for those most troublesome and vexatious of all appendages, travelling trunks, I took passage in the noble steamer "Knickerbocker," from the Albany wharves, for the great metropolis—from whence it was my intention to proceed by the Camden and Amboy railroad, Philadelphia, Baltimore, and Washington, to some point south of "Mason and Dixon's Line," in pursuit of health, and to escape the rigors of the coming season. Ten years constant confinement within the pent up walls of the city, and an unintermitted devotion to sedentary occupations and literary pursuits, had served effectually to undermine a constitution naturally not the strongest, and to beget a craving thirst for the fresh breezes and pure air of the country; while the necessity of making some permanent provision for the future for myself and growing family—a provision not dependent upon the capricious fluctuations either of trade or politics—pointed to the purchase of a snug little farm, in the vicinity of a good market, where all the advantages of a thorough agricultural education might be combined with those to be derived only from the inexhaustible resources of a large town. Governed by these motives and inducements, joined to an early imbibed and long cherished love for "rural sights and sounds," I availed myself of the facilities afforded by the emigration, a few years previous, of an esteemed relative and friend, himself a practical and experienced farmer, from one of the New-England states, to Fairfax county, in Virginia, to carry into effect the views and projects thus indulged, and in less than three days from my departure, found myself comfortably established at his hospitable mansion, seven miles from the city of Washington, within the confines of the "Old Dominion," and under what, compared with that I had so recently left, might fairly be termed a tropical sky. Within one month thereafter, I succeeded in purchasing, on very advantageous terms, a farm of seventy acres, eligibly situated, and which I am now engaged in improving.

Doubtless all of your readers are more or less familiar with the topography and associations of this part of Virginia—the theatre of our earliest annals as a people—the nursery of our greatest statesmen and patriots—the home and the final resting place of the Father of his Country. Here, on the verdant banks of the Potomac—wrapt, as is most fitting and emblematic of the fame of its great founder, in perennial shrubbery,—is Mount Vernon,—and here, at a little distance from the noble mansion, is the Tomb of Washington—the consecrated shrine watered by the tears of a grateful country, and resorted to by crowds of "succeeding pilgrims" from every part of the civilized globe. Here stands the venerable though dilapidated wooden walls, where, at the periodical sessions of the county courts, during those "times which tried men's souls," immediately preceding the outbreak with the mother country, the former heroes and statesmen of the republic—the Washingtons, the Lees, the Henrys, and the Randolphs, were wont to assemble and to discuss the portentous aspects of the political horizon; and here, after the storms of war had spent their fury—after a new republic had sprung into existence—and its high destinies had received the lasting impress of its founder's counsels and guidance, the soldier statesman retired to find in the shades of private life that repose and seclusion he had so nobly earned, and so long and ardently coveted. These are all and each matters of general notoriety; but it may not be known to all that for a few years past, this little county, so richly fraught with the proud associations of the brightest period of our country's history, has been the theatre of a very general and extensive emigration from the northern and eastern states; that the original proprietors of its broad acres and vast forests and noble streams, have, in numerous instances, either abandoned their patrimonial estates, and taken up their line of march for the boundless prairies and virgin fields of the west, or contracted their domains within practicable limits for agricultural improvement: and that the lands thus abandoned, exhausted as a large proportion of them have been by heavy and unintermitted croppings, without any corresponding return in the shape of fertilizing manures, have been purchased at a low price compared with their intrinsic value for farming purposes, by northern and eastern men, who have brought with them to their new abodes that indomitable industry and practical skill before which every obstacle to the attainment of an independent competence for themselves and their children speedily disappears, and the tangled wilderness of a luxuriant but neglected soil is rapidly made to "bud and blossom as the rose." Not less than two hundred of this enterprising class of our fellow citizens have within the past five years, issued from the great "northern hive" and quietly effected the most desirable settlements in this attractive and genial clime, and within the boundaries of this single county; and upwards of two hundred thousand dollars have already been invested in the purchase of improved and unimproved real estate within its limits—most of it at prices ranging from two to five and ten dollars an acre, according to its productiveness and the extent of its improvements. This land consists chiefly of estates, the greater part of which has at a period not very remote, been under vigorous cultivation, and subjected to a succession of exhausting crops, when instead of being placed under a judicious treatment, with a view to the restoration of its fertility, it has been exchanged for other portions, destined in their turn to share the same fate. Thus abandoned, a rank and luxuriant growth of pines, and other evergreens, and shrubs of various descriptions, has usurped the place of tillage. In the mean time, a similar process has been slowly but constantly going on with the adjacent lands, until their proprietors have found no other alternative than emigration or a return to their worn-out lands. The latter presents a formidable enterprise to the planter who who has hitherto only found it necessary to follow the established routine of putting in his crops at the accustomed season, to realize at the end of the agricultural year, an abundant, even though a regularly diminishing harvest, and who, when the results of this species of culture, carried on by the agency of slave labor, rendered it no longer practicable to rely upon one set of fields, had only to resort to others adjacent, and to continue the same process, regardless of ulterior consequences. The former, accordingly, is unhesitatingly adopted; and vast quantities of land are thrown into market at nominal prices, which, in the hands of northern farmers, accustomed to rely upon their own labor, and to make the most of every acre, by husbanding its resources, and by systematic and judicious modes of culture, in a few years resumes its original fertility, and amply compen-

sates the expenditure, as well of capital as of labor, bestowed upon it. The vicinity of the Washington market—at all seasons one of the best and most constant to be found in the United States—and accessible by the best of roads—the mildness of the clime—the uniformity of the temperature—the early period at which the labor of the husbandman may commence, and the length of the season which is before him, and which is never contracted, as at the north, by unexpected frosts and early winters—the wonderful luxuriance which attends the growth of every species of vegetable, grain, and grass—the consequent frequency and abundance of crops—these advantages, together with the general healthfulness of the surrounding country—and the adaptation of the soil to most of the purposes required in an enlightened system of farm husbandry—present strong inducements to all in a less favored climate, whose circumstances or inclination point to a change of domicil, rather to avail themselves of the certain blessings attendant upon the advanced and settled state of civilization, such as is unquestionably to be found here, than to brave the perils and suffer the deprivations and *depravations* of an incipient state of social advancement in the far west.

To those whose physical constitutions have been undermined by the rude and incessant attacks of a harsh climate, and by the rapid alternation of heat and cold which is so common in the northern and eastern sections of the Union, and which it is so impossible effectually to guard against, there can be little doubt of the permanent advantages which a transfer to the mild, equable, and at the same time invigorating breezes of the "sunny south" secures; and which, I am confident, neither a continual northern "exposure" nor the much vaunted "sea breezes" of that latitude can so effectually command. My own experience, and that of others, similarly situated in this respect, can abundantly vouch the almost instantaneous efficacy of the remedy here pointed out, in the renovation of health and strength, the elasticity of spirits, and the complete invigoration of the entire physical system. To that large and constantly increasing class of our young men who are rushing into the already crowded avenues of the various professions, where, in a few short years at farthest, the greater portion of them must be hopelessly stranded in the vortex of that ruinous competition which must necessarily ensue from the vast disparity between the demand for their services and the supply—no less than to the struggling victims to this disastrous and injudicious choice—the cultivation of the soil opens a most inviting and profitable field of honorable enterprise—and I know of no more advantageous investments in this field than are presented by the inducements held out to emigrants and purchasers of land in the eastern or tide water sections of Virginia. This territory is, as yet, sparsely settled; its divisions, instead of being meted out by villages and towns, are subdivided only into counties—the occupants of its soil are widely separated from each other: and such is the tendency to segregation, that you may, in some instances, travel the most frequented highways for twenty, thirty, and forty miles, without becoming aware, except occasionally, of the proximity of a single dwelling—the mansions of the proprietors being thrown back for nearly a mile, and approached by circuitous and wooded lanes. This state of things grows out of the great extent of their domains, and the consequent advantage of a central location with reference to its various parts. From five hundred to a thousand and two thousand acres, are regarded as but an ordinary farm. The period has now arrived, when, for the reasons to which I have above adverted, large portions of these lands are thrown upon the market; and from the sales which I have seen effected during my short residence here, and the vast quantities of fertile and productive land every day offered at prices which are much below the prevailing standard at the north for lands of the same quality, I am well satisfied that capitalists and laborers, with but limited means, might, to say the least, "go farther and fare worse."

I have only to add, that so far as my personal observation and means of information extend, the *society* in this, as well as in every portion of this ancient commonwealth, is of the highest order. Churches, schools, and all the varied institutions which indicate an advanced civilization, abound in every quarter. Slavery, it is true, "and pity 'tis 'tis true," exists; but I have as yet, been able to discover none of those more flagrant enormities with which the fertile imagination of some of our northern friends has invested its already sufficiently repulsive features. The slaves, in this vicinity, are, without a solitary exception, well treated and carefully provided for. The entire gallery of the church is set aside for their use on Sundays; and they uniformly attend, and, I doubt not, profit by the lessons they receive. But I have already trespassed too far upon your valuable paper; and will defer what I have to say further to another number. S. S. R.

Lake Borgne Place, Prospect Hill, Va.

RUTLAND COUNTY, VT.

MESSRS. EDITORS.—I perceive from the December number of the Cultivator, that 138 copies of it are taken in Rutland, and the number taken by the other towns in the county, show that we are eager for information and improvement in agriculture, rearing stock, &c. The soil of Rutland county, (the valley of Otter creek in particular, which runs nearly through the middle of the county,) is not surpassed by any in New-York or New England. The eastern part of the county, lying on the Green Mountains, is excellent for grass, potatoes, and English grain. The dairy, and raising cattle for market, is the principal business. The western part, bordering on Lake Champlain, has a stiff clay soil, that bears grass and hay of superior sweetness, on which large herds of cattle and sheep are fattened for Brighton market, and sold at no. 1 prices. The valley of Otter creek is good for all the grains and grasses, and remarkable for the evenness of crops in all seasons, never suffering, like most other places, by drouth.

The greatest product of the county is Merino wool. There are many fine flocks that average 3¼ to 4 lbs., and some of a little coarser staple, that shear 5 to 5¼ lbs. well washed wool; stock bucks from 8 to 14 lbs. Rutland alone keeps 26,000 sheep.

The Rutland Co. Ag. Society was formed about a year ago. Its prespects are most encouraging. The October fair told well for the first one, for horses, cattle, and sheep, agricultural implements, and manufactures. From 7 to 10,000 of the yeomanry were present. The annual meeting of the society was held on the 6th inst.; an excellent address was given on the occasion, by Prof. HALLOCK, Principal of Castleton High School (Agricultural lectures are given at this institution, and some practical instructions.) The address is to be published; also one on a former occasion, by Prof. CARR, and an essay on manures, by Dr. IVES. The premiums on field crops were awarded as follows:—Spring wheat from 22 to 29 bushels to the acre; corn, 5 applications, from 99 to 135 bushels; oats, from 57 to 84 bushels; potatoes at the rate of 675; carrots at the rate of 1,430 bushels; white beans, 37 bushels. Potatoes in this county but little affected by the rot this year.

H. W. LESTER

Rutland, Vt., 1847.

AGRICULTURE AND RURAL ECONOMY OF EUROPE.

LETTERS FROM HOLLAND—No. II.

Utrecht, Dec. 8, 1846.

EDITORS CULTIVATOR—In the sketch of my journey from Antwerp to Utrecht, commenced in my last letter, I had got somewhat beyond Breda. The country through which we now passed was lower than any we had yet seen, the fields being in many places below the level of the canals, so that the water was pumped up by windmills, and discharged into the nearest canal; upon this method of draining I will not enlarge here, as I may probably devote one or two entire letters to it when I have seen more of the practical working of the system.

The Dutch, in this part of their country at least, have improved their advantages for the keeping of water fowl. Ducks seemed to be the favorites; every little cottage had a troop of them in its neighborhood. During the greater part of the year they support themselves entirely. Oblong baskets, made of straw and reeds, leaving a hole in one end, are provided for their habitations. These are placed on four sticks so as to be elevated a foot or two above the surface of the water, and are reached by means of inclined planes, up which the ducks can waddle quite comfortably. There are generally two or three of these nests at different heights, so that the inhabitants can retreat from one to the other as the water rises in winter.

We now crossed, at intervals of some miles, three branches into which the Rhine is separated in this part of its course. These are called severally the Old Rhine, the Lele, and the Wal. One of them is crossed by means of a bridge of boats, and the other two by ferries of a very primitive character. Much of the country included between these streams is admirably adapted for cultivation; the soil is light in appearance but deep and mellow, evidently possessing great capabilities. A great portion of it lies so high that by means of tiles and careful levelling, it would be quite possible to thorough drain it. This appears scarcely to have been commenced yet; but it would without doubt be of immense advantage. Many large open ditches would still be necessary in order to carry away the water in winter, and into these short tile drains might discharge. I should think the soil of this district admirably adapted to the turnep culture; indeed, we saw some remarkably good crops.

After crossing the last branch of the Rhine, we found the country between it and Utrecht, very low and wet. The river is considerably higher than this region, and vessels descend into the canal that leads to Utrecht, by means of several locks. By means of open drains at short intervals, the water stands a few inches below the surface of the soil, but little of which, in this section, seemed to have been plowed; the greater part by far being in pasture. Some of these pastures are very rich, covered with a fine, thick, dark green herbage, resembling in appearance some of the celebrated old pasture lands of England. In fact, they are doubtless much the same; as for the most part, they have not been plowed within a half century, if ever. If the water has always stood at its present level, three to six inches below the surface, plowing has always been out of the question. By the use of a few wind mills, all of these fields could be much more thoroughly drained, and the farmers enabled to grow grain crops over a large extent of a soil now almost untouched. The Dutch farmers think, I suppose, that these fields are more valuable in their present condition, as unfailing and rich pastures

Prof. Johnston, in his lectures, has some interesting remarks upon the causes of the gradual improvement of pastures upon some of the stiffest clay soils of England; the same causes which he specifies there, probably have a certain influence here.

We saw very great numbers of cows and bullocks during the day, but few sheep. The cows are almost invariably spotted with black and white, and of large size. Towards Utrecht we observed a few of a red color, but still spotted with white. Almost all of these cows had on a kind of jacket, or perhaps it might better be compared to a horse blanket. It is made of coarse brown cloth which looks like sacking, and covers the whole back and shoulders. The owner's name, or some distinctive mark is frequently painted upon it. These coverings are of course intended to protect the animal as much as possible from the effects of the weather; but it does not seem as if they would be of much use in so mild a climate as this. It is possible that the fogs and damp nights may be found injurious; but animals in the lowlands of Scotland, exposed to exactly such weather, need no such covering; this may, however, be owing to difference of breed. In the Highlands of Scotland, on the more bleak exposed farms, it has been found necessary to put jackets on the sheep, in order that they may endure the cold storms; but I do not know that even there, the black Highland cattle ever receive any such protection.

The broad extent of pasture land, and the great numbers of cows about Utrecht, show this to be mostly a dairy country. I am within a few hours of the most celebrated cheese and butter districts. The quantity of both these articles annually exported is immense. It is said to be somewhat difficult to obtain access to the best Dutch butter dairies in such a way as to thoroughly understand their method of making; but I think that it may be managed when I have acquired the language. It certainly will be worth a trial. I cannot hope to accomplish much in this way before spring.

I hear little of the potato disease here, and those brought upon the table are as good as I have ever seen. They grow a small kind here expressly for the table, which are not great bearers, but remarkably mealy and fine flavored. In consequence of the extensive failures last year, a much less breadth of ground has this year been planted with potatoes than is usual, and the deficiency has been supplied by growing increased quantities of buckwheat, turneps, cabbages, and the endless variety of other vegetables for which the Dutch are so famous. Yours, truly, JOHN P. NORTON.

NOTES OF A TRAVELER IN ENGLAND—No. III

MARKETS.—Markets are established and held at stated periods, in every part of Great Britain and Ireland. Some of these are for fat cattle alone; others for store animals, milch cows, sheep, horses, swine, &c. Purchasers are thus enabled to select the stock they may desire; the farmer finds a ready market for what he has to dispose of, and can always receive the pay down for his stock, it being the custom so far as I could learn, always to pay cash at thase fairs. Grain markets are also held, and the same rule prevails. The sales are usually by samples, the buyer and seller each retaining a portion of the sample, to prevent any question as to the quality of the grain sold. No writings are used, the purchaser and seller merely striking hands, as evidence of the bargain. I was told that a case very

rarely occurs where the bargain is *repudiated*. The sales are commonly effected by salesmen, who are men of responsibility, and at all times familiar with the state of the market. Many advantages, it appears to me, result from their method of doing business. The prices are uniform; the farmer obtains the market price; and is not subject to the wiles of the sharper or forestaller. The certainty, too, that he is sure of finding a sale for his stock or grain on market day, and that for cash, is an object of no small account. Whether this system, or something analogous to it, might not be introduced to advantage in America, is certainly worthy of consideration.

SMITHFIELD MARKET.—The Smithfield Cattle Market, in London, held every Monday and Friday, is the largest, and doubtless the most splendid exhibition of cattle and sheep in the world. I visited this market on market days for several weeks in succession, and the beauty, extraordinary fatness, and perfection of the animals exhibited there, was certainly far superior to what I had anticipated.

Monday is the principal market day, Friday being for the cattle and sheep unsold on Monday, and such as arrive after the Monday market. The number of fat cattle weekly brought up, ranges from 2,500 to 5,000; and sheep, 20 to 45,000; calves, 200 to 300; swine, from 200 to 500. This market is in the very heart of London, and as there exists a *prescriptive* right to it, it cannot be removed. It is becoming too strait for the increasing wants of this vast metropolis, which has a population nearly equal to that of the state of New-York, and preparations were making when I was there, to enlarge its dimensions, by removing a large number of buildings. The animals are usually all in their places by sunrise, and are required to be removed by three o'clock in the afternoon, when the whole ground is carefully cleaned, leaving very little traces of its use. The cattle brought up here are from two to three and four years old, acquiring maturity much earlier than is common with us. Since the completion of railways, the cattle come up in much better condition than formerly. Some complaint, however, now exists, as the cattle are frequently injured in the cars by being bruised. The advocates of the broad guage railways, say that this difficulty only exists upon the narrow guage roads, with how much truth I am not prepared to say.

Mr. Colman, in one of his numbers, having given a description of *Smithfield* by night, I took an early opportunity to witness it myself, and I can with truth say, "the half was not told me." I take the liberty of giving his description, which presents as vivid an impression of the scenes which transpire, as anything upon paper can give:—

"SMITHFIELD BY NIGHT.—About midnight, the different detachments, almost treading on the heels of each other, begin to make their way to the place of rendezvous, through the winding streets of this wilderness of houses, and enter the great market place by different and opposite avenues, and like hostile parties, often meet each other in the very centre. Then comes the conflict; the driving of so many thousands of sheep into the several pens; the assorting and tieing up or arranging so many thousand cattle, driven into a state of terror and phrenzy by the men and dogs; the struggles of the different owners or drovers to keep their own and prevent their intermingling with others; the occasional leaping the barriers, and the escape of some straggler who is to be brought back by violence; the sounds of the heavy blows over the head and horns, and sides of the poor crazed animals; the shrieks of the men; the yelling and barking of hundreds of dogs, who look after the sheep and cattle with a ferocity perfectly terrific, and a sagacity almost human; the bellowing of the cattle and the bleating of the calves; forming, if the expression is allowable, a concert of discordant sounds utterly indescribable and hideous, and in the midst of all this confusion, the darting about of hundreds of torch-torches, carried in the hands by men looking for their cattle and sheep, and seeking to identify their marks—all together present an exhibition for which it certainly seems difficult to find a parallel, and sufficiently gratifying to the lovers of the picturesque in human affairs."

The cattle most valued in the Smithfield market, are the Scots, as they are called, consisting of Polled Galloway, West Highland cattle, &c., from Scotland. These are mostly black, of medium size, extremely fat, their meat richly mottled or variegated, and are sure to command the top of the market. These cattle are often fattened by the farmers in England, and the ease and facility with which they take on flesh when placed in their rich pastures, render them a very profitable breed for the market. It struck me, that these are the very animals we need in America, in some sections, at least, and from what I learned of their hardiness, aptitude to fatten a' an early age, and the superiority of their meat, I have no doubt they would be one of the most profitable breeds of cattle that could be introduced A breed similar to the West Highland, I saw in Anglesea, in Wales, and they succeed well there, and are more numerous than any other breed.

The Herefords, Short-Horns, and Devons, are next to the Scots. I esteem the Herefords as very choice animals for beef. Some of as fine animals as I saw in the markets were of this breed. The Short-Horns are much more numerous than any other breed. I should judge that they were nearly equal in numbers to all the other classes. They are the leading stock in England, and their popularity seems to be as high as ever. Several sales from choice herds took place while I was in England, at which the prices ranged very high. At one of them, Earl Spencer's, I think, some of the bulls brought $1,500, and cows sold from $300 to $600.

In passing through the country, cattle in preparation for the market are to be seen on almost every farm. They are fattened on turneps, carrots, oil-cake, &c., and no pains or expense is spared to render them of the finest quality. The great perfection to which animals bred for beef attain is remarkable. Their aptness to fatten, and the laying on of the flesh on the most valuable parts has been secured, so as to leave little more to be done to make a perfect animal for that purpose.

The manner of conducting business market days is different from anything we have in America. Salesmen have the charge of all the cattle and sheep brought to market. They are licensed, and are allowed a certain price on sale—which is about one dollar a head for cattle, and sixteen cents for sheep. The cattle are sold, estimating their weight by the eye, which is done with remarkable accuracy, and the salesman settles with the owner, taking all risks as to pay from the purchaser, on himself. The cattle sell, generally, at from $75 to $100—their weight averages from 600 to 800 lbs., the four quarters dressed.

I observed the purchasers of fat cattle, as soon as a bargain was closed, take their shears and clip off the brush of the tail, and place the same in their pockets. The cattle are then marked, and when slaughtered every part of the animal, horns, hoofs, tail, &c., is preserved with as much care as the brush of the tail. Ox-tail soup is made from the tail. 'Tis said the French introduced this dish, and if all their preparations are equal to this, there is little danger of an Englishman's suffering, even if he should be obliged for a time to live on French cookery.

Milch cows are brought up to the Smithfield market, and are to be seen there every week, though not in large numbers—as the principal market for cows is at Islington, near the great milk establishments of

Messrs. Rhode, and Laycocks. Most of the cows which I saw were Durhams or their crosses, and better cows for milk, in appearance, I never saw. They are preferred in the London Dairies, and are found to yield more milk than any others—and the ease with which they can be fattened when they fail to give the necessary quantity of milk, renders them very desirable for the dairy establishments.

Shepherd's Dogs.—The sagacity of the shepherd's dogs, which are used in driving cattle and sheep, is truly remarkable. The sheep are driven in small numbers, from 15 to 20 or 30 together. Several flocks arrive at the same time, and frequently they become mingled together; yet the dog will find out the sheep of his master, and seldom fails of bringing the wanderer back to the flock. Frequently I have seen a dog directed to bring forward a sheep from the back side of the herd to be examined by a purchaser. He immediately jumps into the pen, and with a bite upon the heel of the sheep starts the animal forward, and he is placed ready for examination. Many similar feats are exhibited, showing that they possess in a remarkable degree intelligence, and if they could speak, it seems that often they would evince more than their masters themselves. P.

PRINCIPLES OF PLOWING.

The principal objects of plowing are, 1st, to loosen the soil for the purpose of forming a proper bed for plants; 2d, incorporating manures with the soil; 3d, destroying the sod or sward, and so placing or arranging the soil and its ingredients that the matters which contribute to the growth of plants may be converted to a soluble state, and rendered available to their support when needed.

The advantages of a mellow bed for plants, are that they more readily extend their roots, and are thus enabled to appropriate to their use the vegetable food contained in the soil, and at the same time obtain a firm hold by which they are better secured against injury by wind or other accidents.

The advantages of incorporating manures with the soil, are in some degree obvious, though these advantages are somewhat various under different circumstances. It is evident that the most favorable action of manure upon soil cannot be attained without some degree of mixture. That the action of the saline principles of the manure tends to render soluble those mineral ingredients of the soil which are known to form constituent parts of plants, there is no doubt; and to effect this result the soil and manure must be brought in contact. On tenacious or compact soils, it is desirable to produce a mechanical effect by the use of manures; that is, to render the soil more open and friable, and hence, in such cases, a thorough mixture of manure, or materials of a fibrous nature, such as straw or long stable dung, becomes necessary.

To facilitate the decomposition of the sward and other vegetable matters, and bring the food of plants into a soluble state, the soil and its ingredients must be placed in such a condition as to be easily acted on by the elements which promote decomposition. Oxygen, one of the component parts of the atmosphere, is the great decomposing agent of nature, and by the aid of heat and moisture, it effects the dissolution of animal and vegetable bodies, as well as many mineral substances.

In performing the operation of plowing, these principles should be borne in mind, as they may furnish a valuable guide in regulating the depth and width of the furrow-slice, and the situation in which it should be left by the plow. It may be observed however, that the proper width of the furrow-slice, must depend somewhat on the nature of the soil. The object is to effect a proper degree of pulverization, with a due exposure to the action of the air.

Loose, gravelly soils require, of course, less artificial division than those of a compact texture; and a width of furrow may therefore be allowed in the former case, which should by no means be taken in the latter. It is one of the greatest defects of our system of plowing, generally, that the furrows are too wide. This error proceeds, probably, from the habit which prevails, of going over a great deal of land in proportion to the labor employed. On all soils which tend to pack and become too close, this system is very injurious. The wider the furrow-slice, the heavier it will be, and the closer it will lie; and it is thus impossible to secure a proper state of friableness unless the soil is finely divided by the plow. Mr. Colman informs us that on the best farms in England the width of the furrow-slice is from eight to ten inches; and in our county the most successful farmers never permit a greater width. We are glad to see that the practice of making narrow furrows is becoming every year more common with us; and we have no doubt that in the course of a few years, its advantages will be generally acknowledged.

Much discussion has been had in reference to the manner in which the furrow-slice should be left—whether flat or at an angle. The same principles are involved in this question as in that relating to the width of the furrow-slice. The flat furrow leaves the soil less light, and in a situation to be penetrated with more difficulty by those decomposing agents, air and heat. The objections to this position of the furrow, are, however, something in proportion to the heaviness of the soil; and on very loose soils it would not be liable to any objection. The proper depth of plowing, must depend much on the composition and nature of the soil and attendant circumstances. Though we advocate deep plowing in general, it seems to us that the system is not universally applicable. We cannot, for instance, discover its advantages on cold, thin soils, where the under stratum is deficient in the elements of vegetable food. There would here however, be an advantage in loosening the subsoil; though we should prefer doing it by the subsoil plow, rather than to bury the vegetable matters of the soil, and bring to the surface the cold and sterile subsoil.

But some lands, unlike those just mentioned, contain the elements of vegetable nutrition to a great depth. Such is the case with alluvial soils, and all those which contain organic matter in the subsoil. In such instances, an advantage is derived from deep plowing, which cannot be wholly effected by subsoil plowing. By bringing the lower soil to the surface, the action of heat and air reduces the vegetable food which it contains, to a soluble condition. We have several times witnessed the good effects of this operation. In one instance we have known a farm which had been so worn down and exhausted that the average yield of wheat was only ten bushels per acre, completely renovated and brought to produce from twenty to twenty-five bushels per acre, chiefly by thorough plowing to the depth of two to three inches below where the ground had been stirred before. The subsoil was rich, but in its natural position was altogether inert, and afforded little or no food to

crops. When it was brought within the influence of the sun and atmosphere, a decomposition took place which rendered it equivalent to a dressing of manure.

We should therefore be in favor of loosening the subsoil, *in all cases*, to as great a depth as it can conveniently be done; but, except in cases where the subsoil contains the essential elements of fertility, we should prefer doing this by the subsoil plow, instead of turning down the top soil and supplying its place by that from below. It is only in that portion of the earth, (as we before remarked,) which is brought within the direct influence of the sun and atmosphere, that the food of plants is brought into the state in which it is consumed by them. On heavy clays, for instance, manure may be so deeply buried by the plow, that it will afford but little support to crops.

It is proper to remark that somewhat different effects are sought to be produced in plowing sod, or sward, and "old land," as it is sometimes called. In the former case, it is desired to place the grass and vegetable matters in such a position that their growth shall be stopped, and that while they shall not interfere with the crop which is to be put on the land, they shall be made to contribute to its support by their decomposition. The sward must be so far inverted as to destroy the grass, and the furrow-slice must be left light to favor decomposition and allow the plants which it is wished to cultivate, to extend their roots. The necessity of carefully inverting the sward, prevents, in some degree, the perfect pulverization and intimate mixture of the soil, which would otherwise be the leading object.

Plows of different construction are best adapted to these purposes. For sward, the implement should be of more length, with a more gradual curve of mold-board, in order to lay the furrow over without its being broken. For "old land," a mold-board with a shorter curve would be preferred, that the soil as it rises may be thoroughly broken and crumbled to pieces.

We have before alluded to subsoil plowing. Its advantages may be briefly stated to be that it affords a greater depth of loose earth for the roots of plants; opens the soil more to the exhalation of moisture from below, which affords protection against drouth; admits the rains to wash out injurious mineral substances which in some instances are contained in the soil and subsoil; and in many cases it operates as a means of drainage.

We have no doubt that some of the advantages here enumerated, would follow the use of the subsoil plow on nearly all soils, though the greatest benefit is thought to be derived from its use on soils underlaid by "hard-pan," and on those having a tenacious subsoil. The "hard-pan" is often occasioned by the oxide of iron. An impervious stratum is frequently formed just below where the soil has been moved by a common plow, on lands which have been long cultivated; and experience has shown that if this crust is properly broken, the particles of iron which had formed it may be washed out, and the fertility of the soil greatly promoted.

The use of the subsoil plow on clayey soils, lessens their tenacity, and allows the surplus water more freely to descend. It has been objected to the practice of subsoiling in such cases, that the earth would after a while become as compact as ever. We cannot see the force of this objection. We know that all heavy soils become in time as close and impervious after having been plowed, as they were before they had been subjected to this operation; but no reasonable person would deny that they were rendered more suitable for the support of crops by being plowed; and we should no more think of objecting to the use of the subsoil plow because its benefits would not continue forever, than of objecting to the common mode of plowing for the same reason. We admit with Mr. COLMAN, that the advantages of subsoil plowing are the greatest in connexion with thorough draining; but at the same time we think it evident that an advantage, of greater or less extent, according to circumstances, is always derived from loosening the subsoil. It is true the earth may run together again. So does the surface soil; but loosening and opening it must only be repeated again, and with the more frequency as the condition of the soil renders it necessary.

In plowing for spring crops, we should prefer commencing on the "old land," leaving the sward till vegetation has started, and the season has so far advanced that the soil has become somewhat warmed. The sward rots much quicker under such circumstances, and the growing crop appears to derive a greater benefit from it.

CULTIVATION OF HOPS.

IN answer to various inquiries which we have received in regard to the culture of hops, we here give an abstract of the remarks of Mr. COLMAN on this subject, in Part VIII. of his "European Agriculture."

He observes that he has had the opportunity of seeing the hop cultivation of Kent and Surrey, where it is carried on in the greatest perfection. The principal points to be observed in the preparation of the ground, planting, &c., are given as follows:

"The ground for hops should be a rich and mellow soil, and, in general, the farmers are of opinion that in order to produce the best quality of hops, the substratum of the soil should be calcareous. That the plant requires a deep culture, is evident from the roots having been traced to a distance of twenty feet. The land requires to be trench-plowed or spaded to the depth of two spits. The former mode is the least expensive at first; the latter mode will prove the most eligible in the end. The ground, indeed, should be subjected to the best garden cultivation.

"The hills are to be marked out in right lines, at a distance of six or eight feet apart. The spot which is to receive the plants should be rendered as mellow and rich as may be, by careful digging. Three or four plants may be placed in a hill. These may be procured from the clippings of the vines, in March; or from what gardeners call layers; or from seed. The latter mode is considered preferable. In hops, the male and female plant are distinct; but many cultivators reject and extirpate the former as barren. It is necessary that they should grow together—that is, a due proportion of the male plants should be cultivated in order to give that energy and vitality to the seed without which it would not produce its kind. This it is which gives weight to the hop, which gives the fine aromatic bitter to the production of the vine, and more fully to the seed; the petal, or leaf of the flower, containing but little of the astringent quality of the hop. 'Cultivators of the hop are urged, therefore, to have many male plants on the ground, at least one to fifty female plants, and particularly to encourage them around their plantation, in the hedges, where no ground will be lost.'"

Hop plants raised from seed are said to surpass those raised from cuttings, are more luxuriant in their

growth, and much less liable to be injured by blight. "They are found to have a seed at the bottom of every petal of the flower, of a most pungent aromatic flavor; while those plants grown in the usual way without the necessary quantity of male plants, have scarcely any seed, and they are mostly abortive. In fact seed gives weight and flavor to the hop, and constitutes the vitality of the plant, or the condition or strength of the hop; and where there is the most seed, there will be the most condition."

"The vines, or bines, grown from seed, will be fit to be poled the third year; those from cuttings or layers the second year. The business of the first year is to keep the ground as clean as possible, and the plants well earthed up. Though they are not poled the first year, yet a stick is put into the ground, to which they are tied and trained. The hop is an enduring plant, and some fields in Kent have been in hops beyond the memory of persons now living; but it is deemed best to renew them once in twelve or fifteen years.

"The hills require every spring to be opened and carefully trimmed—the last year's shoots to within an inch of the main stem, and the suckers close to it. In some cases they are manured only once in two years. Farm-yard dung is an excellent manure for them, and the clippings or waste of woolen mills, called *shoddy*, are much valued and used. The land on the borders of the chalk formation is much preferred for the growth of hops."

Of varieties, those called "the *grape*, the *white bines*, and the *golden*," are most esteemed. "The white bines are most esteemed in Farnham, Surrey, and there are no hops in the market which bring a better price than the Farnham."

The poles used for hops are from twelve to sixteen feet long. Chestnut, ash, and larch, are the kinds of timber from which they are made in England. In this country cedar would probably be preferred, from its lightness and durability. As a protection against injury from winds, rows of trees are sometimes planted on the sides of the fields most exposed. The experiment has been tried of strengthening the poles by means of an iron wire extending from one to another on the top. Another mode which has been adopted for the same purpose, is described as follows: "The weather sides of the piece had been poled four hills deep, with handsome, straight, twenty-one feet, large poles, in rows. These were lashed to similar poles placed horizontally across them, about eight feet high, from end to end of the hills; and the rows of hills were similarly bound to each other by poles placed from the outside rows to the inside ones. By this means a phalanx of poles offers a sufficient resistance to the wind to shelter the whole ground." It is added that this arrangement has been found a complete protection against winds and storms.

Plantations of hops are sometimes cultivated by a horse-hoe or plow, and great pains are always taken to keep the ground clean from weeds. From accidents to which the crop is liable, such as blight and injury from aphides, a good crop is not counted on oftener than once in four or five years. "An acre contains a thousand hills, and the yield may be put down at from five hundred to a thousand pounds per acre." The expense of cultivating an acre of hops is put down at thirty pounds, exclusive of rent, or one hundred and fifty dollars.

"It is desirable that only the same kind of hops should be planted in a field, so that the ripening may be uniform. It is important that the hops should be of a bright golden color, and full of aroma, or what is called *lupulin*, which gives its value to the hop. The bines at the season of harvest are cut about three feet from the ground; lower than this is injurious to the plant from excessive bleeding; and the poles are then lifted from the ground and laid upon frames, when the picking begins.

"The hops are picked in large baskets, which are guaged by marks; and an accountant is always in the field to oversee the picking. They are sorted as they are picked, and the discolored ones put by themselves. The price for picking varies from two to three and a half pence per bushel, or from four to seven cents. From five to seven bushels is considered a fair day's work, though I saw one woman who had picked in a day eighteen bushels.

"The hops being picked, they are at once conveyed to the kilns, to be dried without delay. A night's delay would be extremely injurious. The most approved kilns are now made of brick, of a conical or sugar-loaf form." Mr. C. copies from "Buckland's Report of Kent," a description of these kilns. They are formed by "a circular kiln of brick-work, from fifteen to eighteen feet diameter, with rafters, twenty-four to twenty-seven feet long, leaving a round opening in the apex of the roof, surmounted by a movable cowl (or swinging ventilator,) the object of which is to allow the vapor of the drying hops freely to escape. The drying-floor should be at least ten or twelve feet from the fires; is usually made of stout laths of fir, about two inches apart, covered with a horse hair cloth, upon which the hops are evenly spread. The improved modern practice consists in having one or more large openings or fires to one kiln, and to admit plenty of cool air from without, the draught being regulated by means of flues and sliding doors. The fuel used in drying hops is, in all cases, charcoal or coke, with some anthracite."

In drying hops, we are told a large amount of sulphur is used; and though great prejudice existed at first against it, no objection is now made by the brewers. "The hops remain a few days after being taken from the kiln, in the storehouses, before being packed The packing has been repeatedly attempted by machinery, but none found equal to the human machine. A bag therefore is suspended through the floor of the room in which the hops are deposited, by a hoop, which forms a temporary rim to it; two large handfuls are tied up in the corners of the bottom of the bag, to render the handling of the bag more convenient; and the packer then gets into the bag, and draws the hops, which are shoved towards him on the floor by a child, with his arms, into the bag, and treads them with his feet as closely as possible. * * * A bag contains about 2½ cwt."

We have chosen to give the English mode of cultivating and curing hops, because from the extent to which the business is there carried on, and the particular attention devoted to it, the management is better understood, and a superior article is there produced to that which is generally found in this country. Mr. Colman observes that great complaint is made of American hops in the English market; that they are not well cured and assorted. No insuperable obstacle, however, exists to producing hops here of a quality equal to the English; the same skill and attention which is there exercised is only requisite, and we cannot doubt that its practice would be attended with greatly increased profits. Mr. C. is quite familiar with the modes of managing hops in this country, and his account of the English method is on this account entitled to the more confidence, as he is able to judge correctly of the relative advantages of the different modes.

Subsoil Plowing.—The editor of the Farmers Visitor says that by using the subsoil plow, his crops of potatoes were increased at least one-third—the same kind and quantity of manure being used in both cases. This difference on an entire farm, would in twenty years, amount to a large estate.

Hessian Fly in Ohio.—The Ohio Cultivator states that much injury has been already done to the young wheat crops in nearly all parts of the state, by the fly.

VETCHES OR TARES.

RALPH R. PHELPS, ESQ., of Manchester, Ct., requests information in regard to the culture of vetches or tares. There are, it is said, no less than ten species of vetch indigenous to Britain, and one of these, the tufted vetch, is believed to be indigenous to the United States. Several kinds are cultivated in England, the principal of which, according to C. W. JOHNSON, are the tufted vetch, wood vetch, common vetch, and bush vetch. Some of the species are perennial, and others only annual. The "winter vetch," (*Vicia sativa*,) is most approved in England, but we believe it has not succeeded in this country—or at least in the northern portions of it—not surviving our severe winters. The spring or summer vetch has been tried here and found to succeed very well for the production of forage, but does not seed as well as in England. It is, however much prized as a substitute for hay, and for this purpose, and as a preparatory crop for wheat, has been sometimes cultivated in this country.

In the "Transactions" of the *old* Agricultural Society of this state, we find an interesting paper on the cultivation of the vetch, by ROBERT R. LIVINGSTON. He gives the result of trials made with this plant in 1794, and '95. His first experiment was with spring vetches, of which he sowed one acre of rye-stubble—"the soil sandy and much worn out." He sowed the crop about the first of May, with three bushels of seed to the acre. When the vetches were up, they were dressed with a bushel of gypsum. They were cut when in full blossom, and "yielded two large wagon loads of hay." The fodder is said to have been "remarkably succulent, and extremely well calculated for cows and sheep." His next experiment was equally favorable as regards the value of tares as a forage crop, but they failed in seeding.

From the result of his trials, Mr. LIVINGSTON concludes that vetches would be the best of all preparations for wheat. "The ground," he says, "is so well covered that every weed is stifled: the air at the foot is stagnant, and the plant being of that succulent kind which feeds much on the atmosphere, I think it cannot fail to enrich the soil. Mine appeared so mellow and free from weeds when the vetches came off, that I was tempted to sow the piece to lucerne." It can be taken from the ground in time for the sowing of winter wheat

In addition to the above, we give the following communication. The writer is practically acquainted with the culture and uses of vetches, both in England and in this country. .....

MESSRS. EDITORS—Vetches are grown in England to a very great extent, with much profit to the farmer, and with great benefit to the soil. They will grow on any kind of land without manures, if it is not very much exhausted, and are excellent food for all kinds of animals. I consider them the very best food for fatting sheep, as those animals will thrive faster on them than on any other kind of green food. The farm horses are principally kept upon them, more especially on light soils. In some instances, when their day's work is done, they are all tied by the leg with a long chain, and thus eat them off the field where they grew; but the more regular practice is to draw them home to the stables, or a large yard, surrounded with sheds with side mangers, to feed them in. This yard is kept well littered to absorb all the moisture made by them. Cows are very fond of them, and in dry seasons when pastures are short, they are often fed to them morning and evening while milking. And I may here remark that I believe it to be an excellent practice to feed cows while they are being milked, as they let down their milk more freely. But it is dangerous to feed the green vetches to excess; they will cause bloat, and very much injure a cow that is pregnant. I have known many cows to slink their calves from being overfed with vetches.

Store hogs are kept in thriving condition with them through the summer. This crop, when fed off on the land, is next to the turnep, the most renovating one to the soil, more especially on light soils, where a seven field system is pursued; and that being my practice, while with my father in England, I will state it, to show the advantage of the vetch crop.

I winter-fallowed for turneps, in the way I described in the Jan. number of the Cultivator, and was generally successful in obtaining a good crop. The turneps were fed off by the sheep in the winter, the ground plowed once, sowed with barley, and laid down with clover, rye grass, and trefoil. This was a very stony soil. The next year mown for hay; the following one pastured until August, plowed once, and sowed wheat. As soon as the wheat was off, part of the field was plowed once, and sowed to winter vetches. Early in the spring another portion was sown to spring vetches. The sowings were continued until the whole field was sown. The object in the different sowings was to have one come in after the other, so that they may be fed off by the sheep before and when they are in blossom. The fall sowing will be ready to feed the sheep in June, and will force them for market much sooner than any other kind of summer food. In this way nearly all the ram-breeders force their sheep to the extent they have done. Some of them mow them and feed in racks, giving a fresh piece of ground from which the vetches are mown every day, and on which the sheep are certain to lie and leave their manure regularly over the field. Others give them a fresh piece daily; about as much as they will eat up clean, and the sheep eat them from the land as they grew; but I think they do enough better when kept clean for them in the racks, to pay the extra labor.

These small divisions are made by hurdles used for that purpose. When the vetches are fed off, the land is in a good state for oats, and plowed once in the spring for them, coming in for turneps again the following year. By this mode of culture, and a strict attention to clean seed, the land is kept free from refuse, and two white crops in succession are avoided, which I consider of much importance.

I have grown a small quantity of vetches in this country. The spring vetch has done as well as in England, but the winter one will not stand the severe winters in this northern climate. I have seen several small fields of the spring vetch grown by others, with very good success. The seed of the winter one is much smaller than the spring; the latter will not stand the winters in England. I have a more favorable impression of Indian corn for soiling, but whether it will answer for feeding sheep in the way I have described, is doubtful. My opinion, however, would be favorable. I think if sheep were put on it while the plant is young, they would eat the whole of it, and when it failed, it could be sown a second time. WM. H. SOTHAM.

Mr. COLMAN, in his last no., says—"This plant is extensively cultivated in England, and considerably in Scotland; and in my opinion its cultivation may be strongly recommended in the United States."

THE ORCHARD AND THE GARDEN.

TRANSPLANTING FRUIT TREES.

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Eds. Cultivator—When trees are taken from the nursery, where the ground is made rich, and placed in poor soils, they thrive like a horse that has been well fed with oats, and then is given nothing but straw to eat. The ground should be made richer than where they had formerly stood. I have had some experience in the planting of trees for 20 years, and have tried various ways to make them thrive on light and dry soils. Hog manure is the best I ever tried, particularly for the pear, being very rich, and of a moist nature, taken fresh from the pen, and mixed thoroughly with the soil as far as the roots extend. In using this manure, a Beurre Diel pear, budded on a stock to the ground, no larger than a pipe stem, grew eight feet the past season. This manure is generally thrown out of the pens and never removed, when one load is worth ten of cattle or horse manure. The planter should know what kind of trees his soil suits. The Swaar apple, and Baldwin, Yellow Bellflower, Roxbury Russet, and others, might be mentioned, that require a light and dry soil. They will then be large and very fine; whereas, if placed on a wet soil, they are small, and destitute of flavor; and the nurseryman is generally blamed, and called a scoundrel for selling such trees. On the other hand, the Ribston Pippin, and many others might be mentioned that require a moist soil. The pear requires richer ground than the apple, and should never remain in grass. A top dressing should be plowed or spaded in every year, for trees must have food.

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THE PIE APPLE.

This was raised from seed by Mr. Moore, in one of the eastern states. About 30 years ago, Mr. Moore's son came to this place, and brought grafts. The tree then grafted stands on the farm of Mr. Hadden, (my neighbor.) The tree is a vigorous grower, and bears large crops every year. It commences ripening in August, and is in use a long time. The tree grows beautifully in the nursery, making very straight stalks. Young wood, dark brown, with large white buds. Fruit, from medium to large; color, red ; flesh, fine-grained, with a sweet and acid mingled together, and of a spicy flavor, and with the addition of a little butter, makes a middling good pie, without spice or sugar. This will compare with Mr. Comstock's Garden apple, saving a grocery bill.

This apple brought in our market, 50 cts. per bushel, when other good apples brought twenty five cents per bushel. I sent a box of the Pie apple to Messrs. Elwanger and Barry, of Rochester, which they pronounced larger and better than the Early Strawberry.

Schuyler Worden.

Oswego, N. Y., Nov. 28th, 1846.

BUDDING FRUIT TREES.

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Eds. Cultivator—I wish to corroborate the "improvement in budding" suggested by your correspondent, "R. T., Prospect, Conn." in your October number, and would state, that pruning *above* the place of inserting the bud, has been practiced by me with improved success. About the 1st of August, of the present season, I budded several small apple stocks, amongst the number was one, which in about two weeks thereafter, was entirely stripped of its leaves by caterpillars, the *larvæ* of which had escaped notice at the time of inoculating. The insects were promptly destroyed, soon after which, the inoculate started vigorously, as well as the leaves above, which in September were again full size. I then removed the top immediately above the inoculate, which is now, (Nov. 16th,) 14 inches in length.

In conformity with the above detailed *accidental* experiment, I would suggest that stocks to be budded be entirely stripped of their leaves *prior* to inserting the bud. The flow of sap to the extremities would thus be retarded, and a vigorous action on the inserted bud be induced. Soon after the inserted bud starts, the wood above should be removed.

Thus the danger of *losing* the stock, resulting from an immediate excision of the part above is obviated, and not only greater certainty of retaining vitality in the bud, but a growth of twelve or sixteen inches the first season, obtained.

The *practice* by this method, if as uniformly successful, must, I think, entirely supersede grafting, as the labor is less, the risk obviated, and every advantage secured. In the advantages of early budding, as suggested by your correspondent, R. T., I fully concur.

Chas. R. Smith.

Solon, Cuyahoga Co., O., Nov. 16, 1846.

GARDENING OPERATIONS.

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It is well to be in readiness for the commencement of gardening operations at the earliest period which the state of the weather and the condition of the soil will admit. Some articles can hardly be put in the ground too soon after the frost has left it. This is the case with peas, lettuces, radishes, early cabbages, parsneps, spinach, parsley, &c. It is rare that these plants are killed by frosts that occur after the season has so far advanced that the ground has once become fairly settled.

For peas, the earliest varieties, such as the Early Washington, the Prince Albert, and the Cedo-nulli, should be chosen, and they should be planted on the warmest and most sheltered soils. Parsneps and spinach, also may be sown in the open air as soon as the ground can be worked.

It is a great advantage to give some plants a start in a hot-bed; particularly lettuces, cabbage, cucumbers, tomatoes, and egg-plants. By forcing in this way, several weeks may be gained over plants grown in the open air. The chief advantage of raising plants by this mode of artificial heat, is to have them in an advanced state by the time it will do to transfer them to the open grounds; but cucumbers and early radishes may remain in the beds till they are so far matured as to be fit for use.

In this latitude it is not deemed advisable to start hot beds until March, but farther south, they may be put in operation in February. It is of but little use to force plants which are designed to be afterwards transferred to the open air, until the spring has commenced. and there is a probability that the weather would not be so severe after they are set out as to seriously check their growth. It is an injury to keep them in the hot-bed after they have reached the proper size for setting out, as the effect is to "draw them up," as it is called, giving them long slender stems, which prevents their growth.

Hot-beds should be sunk in the ground to the depth of eighteen inches or two feet. They require a large supply of moisture, and if made wholly on the surface, they dry up so rapidly that they must be watered a great deal. If, however, it becomes necessary to make the bed on wet ground, no excavation need be made, as the coldness of such a situation might prevent the manure from fermenting, if deeply placed in the earth. In vol. IX., p. 55, of the Cultivator, will be found some very good directions in regard to the construction of hot-beds.

The weather may be so cold as to render it necessary to use straw or mats to keep the air in the beds of requisite temperature. But they are liable to become at times too hot; hence they should be often examined, and the proper temperature secured by sliding the glasses; always admitting as much of the external air as the plants will bear. Water should be given frequently.

A deep mellow soil is all-important for gardens, and the use of the subsoil plow may be adopted to good advantage, in situations where teams can be made to do the work. In general, however, garden-work must be done by the spade. For most garden purposes, rotted manure is preferable. Composts, which were formed the year previous, and have been well worked over several times, till they have become thoroughly fine, are best for most purposes. A good compost is made of two parts stable or barn manure, two of peat or "muck," one of tough grass sods, and one of leached ashes; mixed as equally as possible in a heap. If put up in the summer, the mass will soon undergo a fermentation, and by being worked over and re-piled, it will be in excellent condition for use the next spring, and will show its good qualities on all kinds of vegetation.

Asparagus beds should be forked over as soon as the ground has settled, and a good dressing of compost worked in. Salt is also recommended as a dressing for asparagus, and we are of the opinion that it is beneficial. It probably operates favorably in two ways. Asparagus is said to be a marine plant, growing naturally in soils impregnated by salt water; hence it is concluded that salt forms an important part of its food. It will unquestionably bear a larger quantity of salt than plants generally; and by applying a liberal dressing of the substance to asparagus-beds, the weeds and noxious plants are killed, leaving the asparagus full possession of the soil.

DESULTORY HINTS ON GARDENING.

FROM VARIOUS SOURCES.

ASPARAGUS.—A correspondent of the Gardener's Magazine, some years ago, stated that the most vigorous growth was produced where the land was imperfectly drained, and rather marshy. Very fine asparagus was grown where the beds were under water nearly all winter. A light, deep soil was considered as decidedly best.

HOEING GARDEN BEDS.—Loudon's Suburban Horticulturist says, "Mr. Barnes thins and hoes all his seedling crops with short-handled gooseneck hoes, with square-edged blades of different sizes, but chiefly of two inches in width. He uses two hoes at a time, one in each hand. He never has weeds pulled up among seedling crops, but always attacks them in the *seed-leaf* state with these hoes."

RIPENING GRAPES.—H. C. Ogle, in the Suburban Horticulturist, says, "I have seen grapes attain the darkest color densely shaded by leaves; and on the contrary, I have seen them only attain a grisly red color when light and the sun's rays were admitted to the utmost extent possible." Hence he disapproves of the practice of defoliating vines during the ripening of the fruit, to let in the light;—the deficiency of color in many cases, is to be ascribed to crowded crops, want of air, or bad culture.

MANURE FOR GRAPES.—The celebrated Brassin, conductor of the royal vinery of France, at first enriched his vine borders with strong and exciting manures; but he afterwards found that manures of slow decomposition were much better, the best mixture being composed of the cleanings of ditches, turf, and road sweepings, after being allowed to ferment a year.

PILLAR ROSES.—A correspondent practices the following mode of having pillar roses. Two-inch augur holes are bored through pieces of scantling 3 by 4 inches, and 12 feet long, one foot apart. They are then set in the ground as posts, 3 feet deep. Near them tall growing roses are planted, two of different colors, one on each side of the post; and as they grow, the stems are run through the holes. In this way, they will rise nine feet high, and no winds can blow the stems off—no tying is necessary. Branches intertwined, bearing roses of contrasted colors, made a fine appearance. The Boursalts, Hybrid China, and some of the varieties of the Prairie rose, furnish fine roses for these blooming pillars.

EARLY LETTUCE.—Take up the plants, which have been sown in the open ground in autumn, and set them in a hot bed as soon as it is made, and they will be fit for the table two weeks earlier than those from seed sown in the bed.

EARLY TOMATOES.—It is well known that in removing plants of the tomato from the hot bed to open ground, they usually remain stationary for a considerable length of time before commencing growing. They may be accelerated if taken quite early from an early hot-bed, and each plant placed in a small pot, and kept in a warm room or other warm place, until the arrival of settled warm weather, when they are to be turned out and deposited in the ground with the balls of earth entire, which scarcely checks their growth. The small number of plants required for the supply of a family renders this process comparatively easy.

BOX EDGINGS.—In watering these, which have been newly planted, in dry weather, it is of great moment where the earth is trod firmly to the roots, and before levelling on the remainder of the earth, to saturate the soil completely, all around the roots, with water, with an unsparing hand, and then finish by spreading the dry soil above.—*Loudon's Sub. Hort.*

DIBBLING SMALL TREES.—Nurserymen often set out thousands of young seedling trees, or root grafts by dibbling. The manner in which many workmen operate, leaves a cavity at the lower end of the root, where the earth is not enough pressed against it. Such trees are apt to die; they will be found to draw out easily; and workmen need to be watched. It is necessary that the point of the tool be so thrust into the ground as to fill the hole, that the point may be considerably nearer the plant than the handle; that is, the line of direction should point towards the plant downwards.

GIANT ASPARAGUS.—A correspondent of Downing's Horticulturist, raises shoots of asparagus, which, he says, are without exaggeration, as large as his hoe handle, and perfectly tender and succulent, by this method:—One part of hen dung to forty parts of stable manure, are spread two inches thick on the bed, in autumn, and forked in. The next spring this is turned over slightly, and a coating of a quarter of an inch of salt added. This dissolves by rains, and kills every weed, while it promotes a vigorous growth of asparagus. He cuts his asparagus when about six inches high, *wholly above ground*, and then it is all perfectly tender.

POSITION OF FLOWER-BEDS.—It often happens that two different flower beds may be equally well managed and flourish alike, yet one may be a mass of brilliancy,

while the other exhibits little or no beauty. There are many flowers which always face the light or the sun; consequently the beds should be so placed that the spectator in the walk or window, should look them *full in the face*. That is, the strongest light, and the position of the spectator should always be on the same side of the bed. This will be found particularly necessary with the pansy or tri-colored violet, and some other of the smaller flowering plants.

Best Sites for Fruit Gardens.—Edson Harkness, of Peoria, Ill., who has had much experience in fruit raising, makes the following statement in relation to the culture of the peach and grape, (which are partially tender,) which will be found to contain valuable information to western fruit cultivators, and which fully accords with experience elsewhere. "The peach and grape flourish best upon our highest lands, and upon a thin soil; and it does not seem expedient to cultivate these fruits extensively on any other. The beautiful, gently swelling hills, called mounds, which are found interspersed all over our prairie country, are, so far as tried, peculiarly adapted to the culture of the peach and the vine. The exemption of the mounds from frost, after vegetation starts in the spring, gives them a great advantage over lower situations. During the last ten years, the wild grapes upon our highest lands have not been injured by frost, while in the low lands or hollows, they have been destroyed nearly every alternate year. And when the peach trees are injured by the winter in every other situation, those on the mounds escape.

The Minister Apple.—This apple, first brought to notice by the late Robert Manning, has lately been recommended by various writers as one of the very finest of all fine apples. From a full examination of specimens produced in western New-York for two years past, the writer has been unable to place it higher than second rate in flavor, though a fine-grained, large, and fine looking apple.

Fruit Trees Gnawed.—A correspondent of the Gardener's Chronicle, finds that a mixture of soot and milk, applied with a brush to fruit trees, protects them from rabbits. According to Downing's Horticulturist, a mixture of tar and milk, in proper portion to be of the thickness of paint, is a good application.

Cranberries on Upland.—A. Burnham states in the Massachusetts Plowman, that he set out cranberries from the swamps, on good corn ground, of a loamy character, in hills to admit the cultivator, and clean hoeing. A part had six inches square of muck on the roots, and others none; both did equally well. The transplanting was done early in spring; they bloomed about mid-summer, and bore fruit the same year. "The fruit," he states, "is large and handsome, many of the hills yielding a pint of berries." T

PREMIUM CROPS OF VERMONT.

We have often thought, that in regard to climate and natural advantages, too much importance is given to the idea, that the south and southwest portions of the country are superior to the northern and New-England states. Some people, for instance, appear to entertain the belief that Vermont is located so far in the Boreal regions, that she must ever be subject to an ungenial clime, and prevented from being distinguished as an agricultural state. Perhaps a lingering idea of this kind in the mind of the writer, was one cause of the agreeable surprise he experienced when he for the first time passed through a portion of the Green Mountain state. The section alluded to is composed chiefly of the counties of Rutland, Addison, and Chittenden. Perhaps there are other portions of the state of equal quality; but we can safely say, that we have never passed through three counties of any other state, where the general condition of things indicated a more independent and intelligent agricultural population.

In amount and value of agricultural products, also, it is believed that some parts of Vermont are not behind any other section of the country. It has been stated by one who had carefully examined the statistical returns, that the county of Caledonia, (the northern boundary of which is only twenty-five miles south of the 45th degree of north latitude,) produces more in proportion to its farming population, and the number of cultivated acres, than any part of the Union. [See Cultivator, new series, vol. 1, p. 273.]

We have been led to these remarks from having lately seen in the Vermont papers, notices of the premiums awarded for crops grown last year, by various county agricultural societies in that state. We give herewith a brief abstract of the yield of the crops of wheat, corn, and oats, which received premiums.

The premium crops for *winter wheat* in the county of Addison, were 59 bushels 12 quarts per acre, for the crop which took the first premium, and 39 bushels for that which took the second premium. For Chittenden county, the premium crop was 41 bushels per acre: for Windsor county, it was $35\frac{7}{8}$ bushels, for the first premium, and 28 bushels for the second; for Franklin county, it was $38\frac{1}{2}$ bushels.

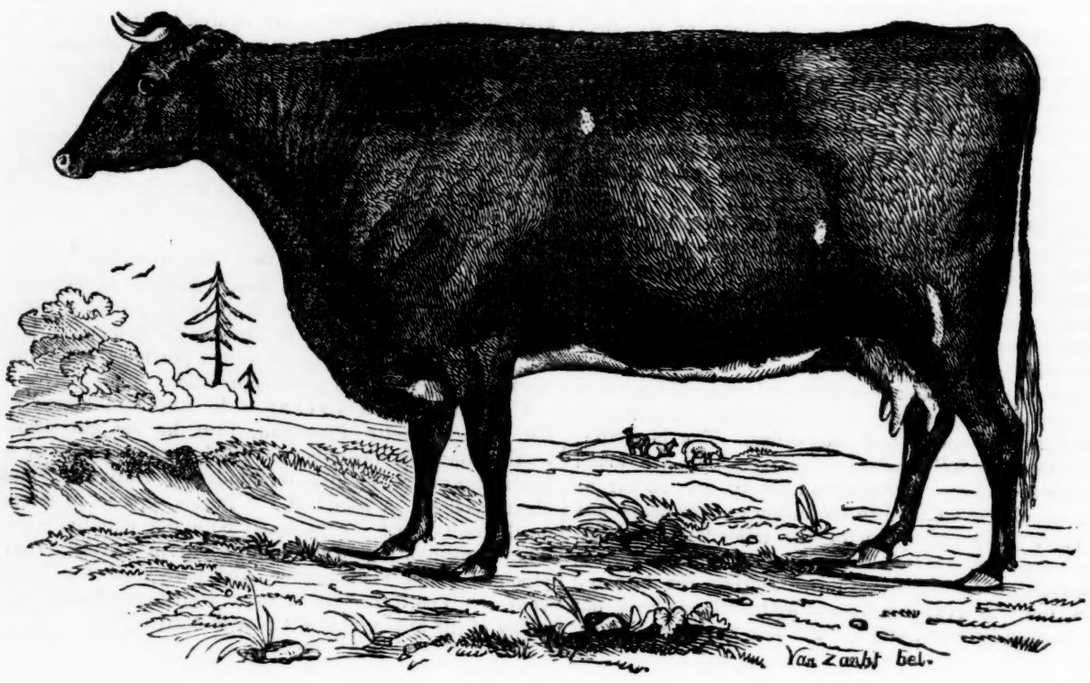
For *spring wheat*, the yield of the crop which took the first premium in Addison county, was 56 bushels per acre, and that which took the second premium, 40 bushels per acre; for Chittenden county, the yield of the premium crop was 31 bushels per acre; for Rutland county it was $27\frac{3}{4}$ bushels; for Windsor county, 32 bushels, for the first premium, and $31\frac{1}{4}$ bushels for the second premium.

For *Indian corn*, the yield for the crops which took the first and second premiums in Addison county, were 113 bu., and $82\frac{1}{2}$ bu.; for Chittenden county there were four premiums, and the yield of the respective crops was as follows:—$94\frac{1}{2}$, 93, $85\frac{1}{2}$, and 80, bu. per acre; for Rutland county, the premium crop was 88 bu. per acre; for Windsor county, 119 bu., and 106 bu. per acre; for Franklin county, there were four premiums, and the respective yields were $101\frac{1}{2}$, 100, $74\frac{1}{2}$, $73\frac{1}{4}$ bu. per acre.

Of *oats*, the premium crops of Chittenden county were 67 bu. and 64 bu. per acre; for Rutland, $83\frac{3}{4}$ bu.; for Windsor county, $93\frac{3}{4}$ bu., and 80 bu.; for Franklin county, 63 bushels.

We notice that in Franklin county a premium was awarded for 960 bushels of *carrots* produced on an acre.

These would certainly be considered remarkable crops for any part of the country; and they indicate the spirit which we are confident pervades the farmers of Vermont to a wide extent, for the advancement of improved agriculture. Nowhere is a more general inquiry awakened, or a more liberal patronage bestowed on agricultural publications, and we cannot doubt that the legitimate results of this spirit are evinced in the prosperous condition of the farmers and the bountiful crops they obtain.



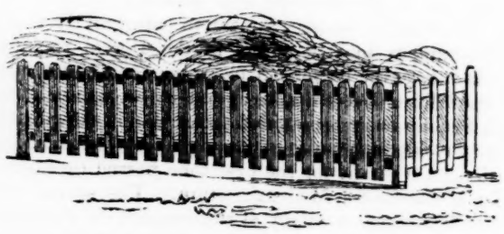
MR. VAIL'S LADY BARRINGTON IIId

EDS. CULTIVATOR—As you are about giving to the public, through the medium of the Cultivator, a portrait of my imported Durham cow, "Lady Barrington, 3d," to which animal was awarded the first premium for the best Durham cow in the first class, at the New-York State Agricultural Society's show, held at Auburn, in September last, I have thought it might be of some interest to accompany the portrait with her pedigree, and an extract of a letter I received from THOMAS BATES, Esq., of Yorkshire, England, her breeder, and from whom I purchased her. The following is the pedigree, as given by Mr. Bates:—

"Lady Barrington, 3d, bred by Mr. Thomas Bates, of Yorkshire, England, calved 22d February, 1840. Got by Cleveland Lad, (3407;) dam, Lady Barrington, 2d, got by Belvidere; (1706;) g. dam, Lady Barrington, 1st, by a son of Mr. Mason's Herdsman, (304;) g. g. dam, Young Alicia, by Wonderful, (700;) g. g. g. dam, Old Alicia, by Alfred, (23;) g. g. g. g. dam, by Young Favorite, by a son of Favorite, (252.) Cleveland Lad. (3407,) the sire of Lady Barrington, 3d, was awarded the highest premium at the Royal English Agricultural Society show, at Liverpool, in 1841, and also the same year the highest premium at the Yorkshire Agricultural Society's show, at Hull, and he is now in the possession of Lord Feversham, at Duncomb Park; his grandsire, Belvidere, (1706,) was sire and grandsire of the Duke of Northumberland, (1940.) Lady Barrington, 1st, was bred by Lord Barrington, and this was his favorite tribe of cows from 1794, and I bought my first Lady Barrington in 1831, after his death. This tribe of cows generally breeds females, and will breed well to your Wellington Bull."

I will add that this cow was awarded the first premium at our Rensselaer Co. show last autumn, and is a good milker. She gave 22 quarts of milk a day, previous to sending her to the Auburn show, and is the dam of the bull calf (got by my Wellington bull,) which I sold about a year ago, to Col. Hampton, of South Carolina, when about 4 months old, for three hundred dollars. Respectfully yours, &c. GEO. VAIL.

Troy, Feb., 1847.



FODDER RACKS FOR SHEEP.

ONE of the best and most convenient forms for fodder racks is represented in the above figure. It consists of short scantling posts, into which horizontal rails about two and a half by four inches, are mortised, and on these are nailed the upright strips of boards three inches wide, and an inch thick. A wide board forms the bottom. A common carpenter will make two or three of these in a day; and a very few are enough for a large flock of sheep. They are ten or twelve feet long.

More hay is trodden under foot and spoiled during the changeable and muddy weather of early spring, than at other times; and those who are not already properly supplied with feeding racks, should provide them without delay. T.

LUNAR INFLUENCE.—Duhamel cut a great many trees in all ages of the moon, but under other circumstances precisely similar; but in all his experiments, discovered no difference in the timber. Chauvalon, at Martinique, tried accurate experiments on many kinds of vegetables in the same way, planted at different times in the lunar month, but discovered no appreciable difference

MODE OF CULTIVATING PREMIUM CROPS.

INDIAN CORN.—JABEZ BURROWS, of Chautauque Co., N. Y., obtained a premium for a crop of 114 bushels and 32 pounds of shelled corn grown on one acre. This crop grew on what had been an old pasture, which was turned over the latter part of May; it was then rolled, and twenty wagon loads of barn-yard manure spread on and harrowed in; it was marked out in rows three feet apart one way, by fastening four chains to a pole carried by two men; it was planted on the last day of May, in hills sixteen to eighteen inches apart in the rows, three kernels to a hill, of eight-rowed yellow corn. It was hoed twice, and harrowed, (number of times not stated,) between the rows. The yellow eight-rowed corn was chosen for planting in preference to the "Brown corn," so called because the former was thought to be earlier. The corn was weighed at fifty-six pounds to the bushel, and the cobs weighed 14 lbs. to the bushel of shelled corn.

LEWIS B. and EDWARD A. POWELL, of Madison Co., N. Y., received a premium for a crop of 105 bushels and 25 pounds from an acre. This crop grew on land which had been pastured for six years previous—the soil gravelly. It was plowed the first of May, harrowed and furrowed for rows, six to the rod, (or two feet nine inches apart.) The corn was planted on the 7th of May, in hills 18 inches apart in the row. Seventeen loads, of manure (quantity to the load not stated,) had been put on the ground the previous November. The corn was hoed three times.

BENJAMIN ENOS, in the same county, obtained a premium for a crop of 111 bushels and 52 pounds on an acre. This crop grew on land which had been mowed for the last five years—without manure during that time—the soil gravelly loam. The whole lot in which it grew contained two and one-fifth acres. In the fall of 1845. 20 loads of manure were put on the lot, and left in large heaps; and in the following spring 80 loads more of coarse manure were put on, and it was all spread and plowed in about the first week in May. After plowing, 80 loads of fine manure from sheep-sheds, was spread on the field, and it was then thoroughly harrowed. It was furrowed slightly for the rows, three feet apart, north and south, and the hills made at distances of fourteen inches in the row. It was planted the 18th of May, with the "large white-flint eight-rowed corn." A cultivator was passed through the rows as soon as the corn was large enough to follow the rows, and it was hoed, and two bushels of plaster applied per acre. It was also worked with the cultivator, and hoed about the 20th of June and on the 7th of July.

BARLEY.—HENRY BREWER, of Tompkins county, N. Y., raised, last year, a crop of two-rowed barley which yielded at the rate of 50 bushels per acre, 48 pounds to the bushel, and also a crop of Emir or skinless barley which yielded at the rate of about 40 bushels per acre, weighing 60 lbs. to the bushel; quantity of land, about one acre each. These crops grew on a soil described as "a sandy loam, mixed with slate gravel." It is called "a very dry, warm soil, but had been *hard run* for the last ten years." The crop on the ground the previous year, was corn, to which 20 loads of barn-yard manure had been applied. For the barley, the ground was plowed once, and harrowed, and a bushel of plaster applied per acre. Three bushels of Emir barley were sown per acre, but it is stated to have been too much, making the stalks too much crowded. Two and a half bushels of the two-rowed barley were sown per acre.

E. S. SALISBURY, of Jefferson county, N. Y., obtained a premium for a crop of 5 acres and 24 rods of barley, which yielded at the average rate of 55 bushels and 20 quarts per acre, weighing 48 lbs. to the bushel. The soil where this crop grew is said to have been "a mixture of clay and sandy loam." The previous crop had been winter wheat on a summer fallow, without any manure. On the 5th of May last, it was well harrowed, before being plowed; it had been plowed to the depth of eight inches, in the month of November previous. It was plowed on the 6th and 7th of May last, and harrowed again before sowing the barley, which was sowed on the 8th of May, at the rate of 3¼ bushels of the two rowed variety to the acre. No manure was applied to the barley.

SPRING WHEAT.—HART MASSEY, of Jefferson Co., N. Y., obtained 23 bushels of spring wheat from an acre, though he states that he had "straw sufficient to have given 40 bushels per acre, but was reduced by the weevil [*Cecidomyia tritici*,] to 23 bushels." The land had been in corn the previous year, to which a "moderate dressing of manure had been given. The wheat was sown the fore part of May, three bushels to the acre. Four bushels of salt were also sown to the acre, and harrowed in with the wheat. He states that he left a small piece on which no salt was sown, and that the wheat on the salted portion came up most healthy and continued so till harvest, when it was heavier and the heads longer than that from the portion without salt. He has not been able to ascertain at what time wheat should be sown to escape the "weevil."

E. D. ALLEN, of the county last named, obtained 25¾ bushels per acre. The previous crop had been corn and potatoes, on "green sward," with ten loads chip and barn-yard manure." Eight loads of barn-yard manure were applied to the poorest part of the piece before sowing the wheat. It was sown on the 28th of April, 2½ bushels of the Black Sea variety, per acre.

ELIAS BATES, of Windsor county, Vermont, obtained a premium for a crop of 36 bushels on one acre and twenty-nine rods. The land had been mowed for "a number" of years previous to 1844. In that year it was planted to corn, manured with 20 loads of barn-yard manure, and five loads of dust from a coal-pit bed. Twelve bushels of ashes were also put on the corn after it was up. The piece was plowed for wheat about the first of May, and a bushel and a half of seed, washed in strong brine, and afterwards dried off with slacked lime, was sown per acre, the first week in May.

SWELLING OF GRAIN BY BOILING.—The Edinburgh Journal of Agriculture, gives, in the following table, the increase of bulk in different kinds of grain boiled for domestic animals to bursting:—

4	measures of oats	increased to	7	measures.
4	" barley	"	10	"
4	" buckwheat	"	14	"
4	" Indian corn	"	13	"
4	" wheat	"	10	"
4	" rye	"	15	"
4	" beans	"	8¼	"

A good farmer of our acquaintance said that from long experience he considered the value of corn for hogs increased by boiling in the ratio of 25 to 10.

MILKING CLEAN.—Experiment has shown that the milk last drawn from the cow is from ten to twelve times richer than the first drawn portions, or contains from ten to twelve times as much cream.

DOMESTIC ECONOMY.

CHURNING BUTTER.

EDS. CULTIVATOR.—I have seen and read "Mary's" complaints about not getting her "butter to come," with much interest; and although I may not be able to point out the *cause* of failure in her case, I believe she may obviate it in future, by a different management, both in feeding "Brindle" and taking care of her cream.

I have been equally unfortunate with Mary—having failed "five successive times" in getting the butter, and gave it up in despair; but not until the patience of every one was tired out with churning. Until within the last three winters, I generally had much trouble in churning, and when the butter did come, it was almost colorless, bitter, and anything but in proper order for printing.

Since then, my husband has entirely changed his plan of feeding—from hay to corn fodder,—[which I am informed is cut and ground up by machinery, stalks and all, at the rate of fifteen hundred to two thousand bushels a day,] fed dry in the troughs, [after the cows eat their meal—corn and oats ground together,] at the rate of 1 to 1½ bushels, pressed measure, for each cow at a feed.* Since adopting this plan, and while so fed, I have no difficulty in churning; the butter is of the best quality, and a fine rich color; indeed, the difference is so plain from a change in the feed, that I am not satisfied after the grass is gone, until I hear that a good stock of fodder is prepared—the winter season being *my harvest* for selling butter—selling then at nearly double price, if a nice article.

I keep the cream in a warm pantry, (adjoining the chimney, where a constant fire is kept,) in which the temperature is nearly equal to summer heat; and think it much better than setting it near the fire; where it is almost certain to get too warm; and then insipid, white butter is the consequence. I hope Mary may succeed better in future; and am satisfied she will, if the above plan is adopted and persevered in.

Yours respectfully, ANN.

TIMELY HINT—SOOT IN CHIMNEYS.—Towards the latter part of winter, it often happens that the soot in chimneys has become much accumulated, and large fires built in windy weather caused it to take fire and burn with violence, throwing out from the top of the chimney large masses of flame and smoke, and many sparks and burning flakes of cinders fall on the roof. If the shingles are dry, the danger is iminent, and many house-burnings doubtless originate in this way, more especially if this happens to take place in the night. To remove the difficulty and danger, burn out the soot in calm wet weather, by setting fire to straw properly placed in the chimney for this purpose.

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CORRECTION.—Under the head of "Domestic Economy," in our January number, is a recipe for making "Soap for washing White Clothes," in which, by mistake, [of the printer, of course,] "*one ounce*" of salsoda is given, instead of *one pound*.

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* I think the cows would give more milk if the meal and fodder were mixed together and moistened; but the men say this takes too much time; and if mixed without moistening, the fodder is thrown out by the cows, to find the meal. I use the old fashioned barrel churn; but my "old man" has promised me one of Kendall's, which he says is the best constructed churn he has ever seen; not any more objectionable in the point alluded to by Mary, if proper care is taken to clean it after use so as to prevent the iron parts from rusting,

RUSSIAN MODE OF USING BUCKWHEAT.—The seed is first pressed through a mill, by which process the kernel is freed from the hull, and each seed is divided into two or three parts. The ordinary mode of cooking it is as follows:—A common earthern pot or pipkin, generally unglazed, of a size corresponding to the number of persons intended to partake of its contents, is filled about two-thirds full with the grain, and the remaining third nearly filled with fresh water; the pot or pipkin is then placed in an oven sufficiently heated to make the water boil slowly, and to keep it boiling till the whole of the water has disappeared and the grain begins to dry, when the heat of the oven may be diminished; the contents thus become gradually sodden; it swells and commonly projects over the top of the pot, when it forms a thick dark-brown crust. When this appears to be dry and begins to crack, it is ready for use, and being covered with a plate or saucer, should be sent to the table in the pot, as it has been prepared. When used, the crust should be first removed, and a piece of butter and a small quantity of salt added to the grain, and the brown crust broken up and mixed with the pottage below. Thus prepared, it forms a most agreeable, substantial, and nutritious article of food. It is a favorite and daily dish with the peasantry and working classes of Russia, who would not exchange it for any other article of food.—[*Condensed from Dr. Keir's communication in the London Farmer's Magazine.*]

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TO BOIL SALT MEAT TENDER.—The Amer. Agriculturist says, "Put the meat over the fire in *cold* water, and never suffer it to boil faster than a gentle simmer, or it will be hard and tough." Placing it in cold water and heating gradually is an excellent recommention; but what is the object of boiling it so carefully with a gentle simmer? Water, if it boils at all, or if it boils as violently as fire can make it, is equally and at all times at 212 degrees, (under ordinary circumstances,) and the meat must consequently cook precisely as fast in one case as in the other.

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SALSIFY OR VEGETABLE OYSTER.—We could never perceive much resemblance in the taste of this vegetable to the real oyster; but we know a person who cooks it in such a manner that every one that tastes it, pronounces it delicious. The mode is as follows:—Salsify is scraped and washed; then cut into thin pieces across the roots, boiled, in just sufficient water to cover them, till they are very tender. When done, they should be dressed with vinegar, pepper and salt, and a little butter; or instead, a dressing of eggs and flour beaten together and poured over them.

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TO COOK PARSNIPS.—Persons who have never eaten parsnips cooked according to the following mode, have no idea what an excellent dish they are:—Scrape the parsnips, wash and slice them lengthwise; boil in just water enough to cover them till thoroughly done. Then put in a piece of butter, with a little salt and pepper. Beat up an egg with a spoonful of flour, and pour over them; they are then ready to dish up. Parsnips are likewise very good, split once and roasted with pork in the dripping-pan.

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TO REMOVE DUST FROM THE EYE.—Immerse the affected eye in a vessel of clear cold water, and then rapidly open and shut it a few times, when the dust will be washed away.

THE FARMER'S NOTE BOOK.

EXPERIMENT IN THE CULTURE OF INDIAN CORN.—Mr. JULIUS HUBBARD, of Stockholm, St. Lawrence Co., informs us that by the use of a compost mentioned in the Cultivator for 1845, page 89, he raised last year as much corn from two acres as he has usually done from five; but he does not state the precise amount. The compost alluded to, is described in a communication from Mr. CHARLES COLFELT, of Pennsylvania. We herewith republish the mode of preparing it:

"Twenty-five bushels leached and unleached ashes, ten bushels plaster, sixteen bushels lime, and about fifty bushels fine sheep manure, mixed the whole together on the barn floor, and dissolved the lime with beef and pork brine. After thorough mixing, the compost heap had the appearance of the grey plaster. I put one handful in a hill of corn, till I found I should not have enough to go over the whole field, when the quantity was reduced to a handful to two or even three hills."

The operation of this compost we have no doubt would be good; but it is questionable whether all the substances of which it is formed, combine in such a manner as to produce the best results. For instance, lime and sheep manure are incorporated together. According to chemistry, this is "against all rule." The effect of the lime would be to dissipate the nitrogen of the manure, which is its most valuable principle. The nitrogen exists in the manure in the form of *carbonate of ammonia*. The lime, having an affinity for carbon, unites with the carbon of the manure and sets free the ammonia, which is thus lost. Hence it is an established rule that lime should not be mixed with animal manures. If any doubts remain in regard to the matter, we would recommend that those who use the compost should make a fair trial by applying to alternate rows of corn that which contains lime and that which has none, noting the growth of the crops and the product.

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DEEP PLOWING.—Extract from a letter to the Cultivator, dated Zanesville, Ohio, Jan. 16th, from "J. L. C." "For the last few years, I have been trying to reclaim an old farm that had been pretty well 'used up' by shallow plowing. Some six years since, we plowed an old field, (giving it first a good dressing of manure,) about six or seven inches deep. It had previously been plowed about four inches, and some of our 'knowing ones' told us we were killing it by turning up the yellow clay; but nothing daunted—and following the maxim, that if we try our own plan and fail, we have no one else to blame for it, we persevered, and had a pretty good crop. Being encouraged by this, we made another trial, of a similar nature. The field had been much washed and gullied, it being more hilly than the former. After filling the gullies, and "leveling up" some of the deep hollows, and applying a dressing of manure, we plowed it in a simalar manner to the former, sowed oats, and had a tolerable crop; in the fall we plowed again, with three horses. This time the plow went some nine or ten inches deep, bringing up portions of manure with about three inches more of clay subsoil, and left the stubble some inches below the surface. It was harrowed well, and sowed to wheat: and I had about thirty bushels to the acre. This was the summer of 1845, when some of our neighbors did not get five, and but few got twenty bushels per acre. As we failed to get it in grass, we plowed again about twelve inches deep, with four horses, and sowed another crop of wheat, which last harvest averaged thirty-five bushels per acre. As was stated, the fields were very much washed and gullied, which, in part, I charge to shallow plowing, for when the ground is mellow, but a few inches deep, the rains soon saturate it, and it becomes so thin that it slips off almost bodily to the hard subsoil, or forms small gullies which soon run together and make large ones; but when plowed deep, the rain is taken up by the soil, which, being so much more mellow, it seldom has a tendency to run off, but is retained in the earth to give nourishment to the crop; whereas, in shallow plowing, if it does not wash off, the soil is so thin that a few hot days penetrate and dry up all the moisture. And farther, not one of the old gullies have washed out, although we have had some very hard showers, and where you could formerly bury a horse, now there is no trace of such a wash."

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CHARCOAL AS MANURE.—Mr. JOHN MOXON, of Monroe county, N. Y., wishes some information on this subject. He says—"Mr. Pell, of Ulster county, in the Cultivator for 1844, p. 183, says he obtained nearly eighty bushels of wheat per acre, by the use of fifty bushels of charcoal per acre. Not doubting its correctness, I would remark, that such a result has doubtless induced him to repeat the experiment. Two or three repetitions would establish it as a fact in certain conditions of soil, and this fact would thus become the property of your readers, many of whom would be glad to avail themselves of it. What I wish particularly to know, is, the nature of the soil where the charcoal was used, whether light or heavy, and whether it had been manured within four years previous. I have got a pretty large pit of charcoal, and I am puzzled how best to pulverize and apply it. Perhaps Mr. Pell would take the trouble to state somewhat at length the mode he adopted, and thus oblige all your readers, and confer a favor on myself for which I shall be thankful."

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SULPHATE OF IRON.—It has been suggested that copperas, (*sulphate of iron*,) might be advantageously substituted for gypsum, (*sulph. lime*,) as a fixer for the volatile ammonia of dung-hills. I have studied the matter a little, and if I do not err in my calculations, there would be no economy in using it for that purpose; for with a liberal allowance for impurities in the common plaster of commerce, the sulphuric acid of a definite quantity of it, will combine with at least three times as much ammonia, as that of an amount of copperas, which could be purchased for the same money, at the usual prices of both articles in the city of New-York. As, however, the copperas can be used in a state of solution, and so act more readily upon decomposing materials, (sulphate of lime, being but very slighty soluble,) there are, probably, some situations in which it would be profitably employed. F. L. O.

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THE CULTIVATOR FOR JANUARY.—On looking over your paper for January, I am induced to request the American press, generally, to copy your notice of the Veterinary School at Alfort, in France. It has a favorable influence there; but in this reading, inquisitive country, through the medium of the press, the benefits of such institutions would be immense.

Your notice of the hay-fork induces me to say, that I have used Partridge's manure and hay forks for fifteen years, and have not found their equal. They are cast-steel, and should be used as such. If there is any failing in them, it is in the handle, which is not always right. My manure forks, which I have had in use these

fourteen years, (saving the length of the tines,) are as good as ever.

I wrote you in the fall in regard to the potato rot. I am now confirmed in the belief that the rot was not one-twentieth as bad in '46 as in '45, in this state, and I feel encouraged that it will not be known, with us, to any extent the coming year. Fearing I should have to take my potatoes from my cellar, as I had to do a year since, the whole of them were put in unsorted; they have this day been sorted, and not one bushel in a hundred were found defective. They are the Chenango, or Mercer, Hill's Early, and St. John's. My "White blue-noses," from Robbinstown, all sound, and as usual, none better. The latter give a poor yield, are quite early, and very fine as an early or unripe potato.

I saw Mr. Sotham's fine field of Swedish turneps last fall. They were all he says of them, and I can commend the culture of them on his practice, with his skill; but as Mr. Stevenson may have no "Sothams" in his region, I would suggest he tries, in common with Mr. S.'s practice, the following:

Let a piece of sward land be broken up soon after the grass is taken from the ground in mid-summer. Cross-plow it in about a month after the breaking up, when the sod will be found quite rotten. Let it lay a few days till it is dry and crumbly, then harrow, and put on twelve loads of good rotten manure to the acre; plow it in, and let it remain till the following June. At that time plow it; then harrow with a light harrow; ridge it as close as convenient, with a horse and plow; rake the top of the ridges, and sow 2 lbs. of seed to the acre on the ridges, with a drill barrow. When up, and in the third leaf, weed and thin the plants to four inches distance. Before the weeds get an inch in height, weed again, and leave the plants from four to eight inches distance; keep them free from weeds, and the yield will be great. Or, if desirable, the land being in order, you can sow the Norfolk turnep, from (with us,) the 10th of July to the 20th of August—quantity of seed, a common thimble full to two rods of land, evenly sown. Roll the land after sowing. Sow after the harrow, broadcast, and let them take their chance, and the yield, if a favorable season, will be about 300 bushels to the acre. In the last method there is no weeding, and consequently a great saving of labor.

Allen Coffin's account of fruit-growing at Martha's Vineyard, and the growing of the finest fruit by Mr. Tudor, at Nahant, shows that no one should despair. It can be grown with skill on the Nahant rocks, and on the sandy barrens of the Vineyard, open to the boisterous winds of the Atlantic.

I have no faith in stifling borers while in the tree. Many mistake the hole which they come out of for their entrance. Diligent search, and with a piece of wire, bearded at the end, run into the hole of their entrance, which is generally indicated by its pumice-like borings, and with a practiced ear and eye, they may be drawn out. An easy method of extirpation would be of immense benefit to the country.

Thorough draining and subsoil plowing are in their infancy in this country; but their good effects have been proved with us. I have laid some drains thus: Main drain three feet deep and three feet wide, filled with stones placed on the bottom edgewise; chestnut rails, 6 inches in diameter, two courses, on the stones, and then the ditches filled up with quite small stones to half of the depth; then covered with the inverted sod, and filled up. The other drains were dug two and a half feet deep, and filled as the main drain except with one rail. I have also drained my lands in a measure, by digging the trenches for my walls deep, filling in with small stones and placing my wall on them; the walls stand better, and these drains, I think, will never get filled or choked. They are quite economical.

The Orange Quince is the only one I know of worth growing; the others are a leathery indigestible fruit.

The swine at the Massachusetts Hospital, Worcester, which are permitted to live, grow finely. This we have witnessed together. The true Mackay breed will still take the lead. NORFOLK. *Mass. Jan.* 1847.

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THE JERUSALEM ARTICHOKE.—Your notice of Jerusalem artichokes, in the December number of the Cultivator, causes me to say to you, that I can furnish any one who might want the article, with a few barrels, at $4 per barrel, delivered in Norfolk, Va. By the four or five barrels the price could be reduced to $3.50. I commenced the cultivation of artichokes in a very small way, in '45, and more largely in 46, and from their hardy and productive quality, have but little doubt they will prove a very profitable crop for stock—especially for hogs. I design to plant them in a peach orchard—turn hogs upon them when ripe, and let them remain until April. In this way the trees would be cultivated by the rooting, and the fruit, no doubt, would be more perfect, and free of worms, as the latter would be thrown to the surface, to perish by cold, or be devoured by birds, as well as swine. I think it probable enough roots would be left in the earth, to save the trouble of re-planting from year to year, if hogs were not suffered to remain on them too long. JNO. R. TODD. *Near Smithfield, Isle of Wight Co. Va., Jan.*, '47.

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TO GET SUBSCRIBERS TO AN AGRICULTURAL PAPER.—Take one yourself, and be sure to read it, and ponder well upon its contents. When you find an article in it, from which you can draw a hint whereby your own operations can be aided, or your system of doing things improved, take that hint and carry it out in the manner best adapted to your necessities, so that your neighbors may see the benefit you derive from *reading* and *reflection*.

Do not condemn your paper because you find many things in it not immediately calculated for your soil and climate. Remember the object of the Editor is, "the greatest good to the greatest number," of your profession; therefore what will most directly benefit you may not in the least aid others, and yet he may often give you information of universal practical value. A short article may often be of more value to the mass of readers than twice the subscription price, so that you may often get your money back again, and secure a vast amount of valuable information with regard to other farmers' management, in the bargain.

When yom meet a brother farmer, do not begin to talk politics, mutter over the Mexican war, nor enter very deep into the particular guessing of your neighbors's doings, but let the vein of your discourse be on some topic relating to improvements in agriculture, or farming, if the term suits you better. Show clearly and conclusively that the advancement of your profession is a primary object, in your estimation. Remember that *men make professions* honorable and give them importance, while mere profession never made a man in the world; much less has it put *one idea* into a brainless scull.

After you get your neighbors waked up a little on the subject of talking about farming, tell them the advantages of papers devoted to the subject; then enlist an energetic individual in each school district in your place, to go over that district and get subscribers for the paper of your choice. But if you find a man who subscribed last year, that draws a long breath, and says he "don't see much use in them," go along and leave him; the sooner you get out of the atmosphere of an individual who has received such a paper one year, and found no benefit in it, the better. You may conclude that he has not read it, or if he has, it has been in so

sleepy a manner that he needs to read it over again, so that when he wakes up, he has a full year's stock of intellectual food on hand. But with all others, argue the matter fairly, and probably three out of five will subscribe, and in this way, in going over the town, you will get up a respectable club, and thereby receive your papers at a liberal discount.

But do not stop talking; carry the idea along with you that your business is a topic worthy of consideration and remark. *Keep up* the interest when you have excited it, and you will find it gaining the strength of numbers and of talent continually, and in a short time you will find no difficulty in, as often as once a year, at least, raising a *club* to take agricultural papers, and in the end, you will see the value of your farms and of their stock increased, and the mental energies of the farmers around you gaining assurance of strong and richly cultivated intellects. W. Bacon. *Richmond, Mass., January* 15, 1847.

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Anthracite Coal Ashes.—Having observed many years since, the beneficial effects of Anthracite coal ashes as a top-dressing for grass, I carefully apply them in that way. For the double purpose of separating the ashes from the coked coal, (which is good fuel for stoves and green-houses) and avoiding the unpleasant labor of hand screening, I have had a rough shed constructed in an angle of terrace walls, into which the ashes are dumped upon a sand screen, and the coal and ashes fall into separate apartments, out of sight and the weather, and all danger from fire precluded. I annex a vertical section of the contrivance. Anthracite coal is an invaluable blessing to this cold transmontane region. It is the cheapest, safest, and least troublesome fuel in the world. It keeps our dwellings and green-houses at a uniform temperature during the long winter nights, and what is very desirable in the country, the cook always finds her fire ready for preparing early breakfast. All *labor-saving* machinery is peculiarly valuable in this country. It diminishes the number of our "helps," who are often *no helps*, (*lucus a non lucendo,*) and fills up the country with a kind of dumb population, which gives no trouble. But whether the ashes are screened or not, they should not be thrown away,—for when plowed into stiff soil they improve it mechanically and chemically, as incineration would lead us to expect. Evelyn.

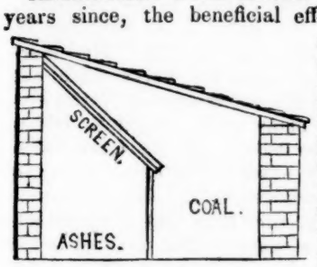

Fig. 00.

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Dr. Lee's Criticisms.—In the first number of the current volume of the Cultivator, an attack of Dr. Lee was noticed, showing that he had strongly censured me for doing the same thing which the most eminent chemists had done, and which he had himself done in a more glaring degree; and also glancing at his error in asserting that animal excrements were no *better* as manure than water and dried vegetables. He has again appeared with nearly two columns in his paper, in which he avoids the original matter in dispute, and attempts to make his readers believe that I hold the opinion, that animal substances are secreted "*out of nothing.*" He builds his argument on this point on the very singular assumption, that the terms *secrete* and *create* are synonymous. He must know that I have not advanced any such absurd position; and I ask him, candidly, if he is not bound, as a just and honorable man, to retract his former censorious and uncalled for remarks, now that I have shown their injustice, which he himself tacitly admits, by attempting a new issue. J. J. Thomas. *Macedon, 2d mo.*, 4, 1847.

Unsuccessful Experiments.—In the Cultivator for June, 1846, is an account by J. E. Macomber, of his success, or rather want of success, in rearing and fattening swine. I was much struck with the details at the time, and concurred with him in the opinion, that farmers should sometimes favor the public with an account of their unsuccessful experiments; for, in farming, as in other pursuits, "it is not all gold that glistens." To publish only the enormous products and profits that are sometimes obtained, is too much like proclaiming the cures effected by quack medicines; while the thousands, yea, millions, that use those medicines without benefit, are left nnnoticed.

Poultry.—In some of your former numbers, I have mentioned my success in keeping poultry, &c. I will now give you the other side of the picture. Having for a few years past, had many more calls for choice breeds than I could supply, I determined, about a year since, to give increased attention to the subject of breeding poultry, and during the last spring and summer I set over seven hundred eggs, from some ten different breeds and varieties. I took special pains to obtain the best kinds of food for the chickens, and to have them at all times well taken care of; but the result is, only about one hundred lived to grow up. There seemed to be a general conspiracy against them among all their enemies, and all the elements—such as cats, rats, skunks, weasels, lice, cold, heat, rain, sunshine, and innumerable other things. In balancing the profit and loss, I find the loss greatly to preponderate this year. But, an occasional failure should never discourage any man, and past losses should only stimulate to increased exertions for the future. H. A. Parsons. *Buffalo, Dec.*, 1846.

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Broom Corn.—Noticing a statement in the Maine Farmer, that "the rapid deterioration" of broom corn, "has of late become a subject of universal complaint," with a comment that "*if planted near, or by the side of Indian corn, it will inevitably mix, and in a short time assume the characteristic features and qualities of the former;*" I deem it a duty to give to such erroneous views, a positive denial, which I do without having ever cultivated it; but I base my assertion on the immutable basis of the eternal laws of nature. Indian corn is of the genus *Zea*, a native of our country; broom corn is of the genus *Sorghum*, a native of India, and the one can no more be changed to the other, than wheat can be changed to chess, or than a horse can be changed to a camel, by occupying an adjoining stable. It is full time that such silly notions, with all the moonstories, witchcraft, ghost, and hobgoblin tales, and all other supernatural pretences, should be consigned to oblivion, and not render their propagators the laughing stock of every well informed mind. I presume the sole cause of the so-called deterioration of broom corn, at the east, is an improper course of culture. Let them visit the farms at the German Flats, on the Mohawk, and take a lesson for future guidance. Wm. R. Prince. *Flushing, Jan.* 25, 1847.

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Recent American Patents, reported for the Cultivator, by Z. C. Robbins, Mechanical Engineer, and Attorney for procuring patents, Washington, D. C.

For an improvement in *Preparing Grain for Flouring:* J. W. Howlett and F. M. Walker, Greensboro, North Carolina, October 16th, 1846. This is for a process of toughening the hulls of grain immediately preparatory to grinding, by passing the same through a current of steam. The patentees say—"the utility of toughening the hulls of grain in some way previous to grinding, and also the difficulty of effecting this desideratum uniformly, is well known to practical millers. When grain is ground in too dry a state, the hulls are so tender and brittle, that a portion of them are pulverized, and pass through the bolt with the flour, dis-

figuring its appearance, and greatly deteriorating its merchantable value.

Claim.—What we claim as our invention, and desire to secure by letters patent, is the method or process of toughening the hulls of wheat or other grain, preparatory to grinding, by the application of steam, substantially in the manner herein set forth.

Haley Brown, of Brummel's P. O., Davidson Co., N. C., hus become the owner of the above patent.

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FEEDING STOCK.—Mr. J. R. HOWARD, Easton, Mass., writes—"A friend of mine says he has made his pork by feeding the swine with two quarts of corn per day for each hundred pounds, live weight, and he would like to learn whether it is proper to assume this or any other stated quantity, as being requisite or proper to feed to other aninals—cattle, horses, poultry, &c., —that is, what quantity of corn, or other food, should be given for each one hundred pounds of live weight? We should be glad to receive the observations of any persons who have experimented on this subject.

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PECULIAR GROWTH OF VARIETIES.—The peculiar growth of different varieties of fruit trees, as marks for distinctive characters, has long attracted attention. The writings of Duhamel, and the English Pomological Magazine, contain minute descriptions of the growth of the tree, and the appearance of the young wood, buds and leaves, often carried out to great minuteness. Henry W. Beecher, of Indianapolis, in a review, last year, of Downing's work on Fruits, has strongly urged the importance of these characteristics; and later, F. K. Phoenix, of Delavan, Wisconsin, in the last number of the Horticulturist, has dwelt largely on the same subject.

The writer of these remarks, had, many years ago, found the minute descriptions contained in the European works already referred to, of little value, the marks being too indefinite for conveying accurate knowledge by mere words. Hence, in the fifth number of the Cultivator of last year, in some remarks which were made on this point, the untangible nature of these characteristics was distinctly pointed out; and a comparison made with the appearance of the human face—by which every man may be recognized at a glance, although that power of recognition could not possibly in most cases be conveyed by a mere written description. This, the article in the Horticulturist already referred to, designates as "queer doctrine."

The truth is, this was not a fair comparison. For not only may the countenance of a friend be known by the mere *expression* at a moment's glance, but this may be transferred to paper in the form of an outline or portrait, and if accurately done, is scarcely less easily recognized, even though the *color* of the face, and the form, size, and motions of the rest of the body, may be entirely excluded. Would an outline drawing of a particular variety of fruit tree, convey as unequivocal an idea, at a moment's glance? Would a well executed painting of the leaves and branches convey the idea? Not at all—for the Editor of the Horticulturist, in his "remarks" on the above-mentioned communication, says, that the late eminent ROBERT MANNING, who had the most skilful eye he ever knew in distinguishing varieties by the growth, though he knew well the trees on his own grounds, could recognize but few, and those of the most strongly marked sorts, when removed to grounds but a few hundred miles distant, and with a climate and soil different from his own. Others, it is stated, were equally at fault, when removed beyond their own immediate soil and climate; to the truth of all which the writer can add his own similar experience.

If, therefore, the difference between Boston and Newburgh, was sufficient to work such a change in the aspect of most varieties, that the most eminent American pomologist could not recognize them, though with the trees and the whole trees before him, much less could an accurate painting of parts, enable him to do it; and still less a mere outline drawing; to say nothing of the attempt to do it by words only.

These remarks are made with no desire to underrate this useful *auxiliary* to the description of some varieties; and an important aid to accuracy to every nurseryman, who, though he may not easily describe, may usually recognize his young trees by the appearance of their growth. T.

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BENSON'S HYDRAULIC RAM.—I noticed in your January number, the request of Mr. Haywood, with regard to Benson' Hydraulic Ram, to which with pleasure I reply, that when the machine was set up for inspection, in this town, it was made to carry water to the height of seventy-five feet, in much shorter distance than he represents it to be from the spring to his house, with perfect facility. And now, Mr. Werden, on whose premises it was then located, and who has since purchased it, and made it a permanent fixture to his premises, informs us that it raises the water from forty-five to fifty feet in a distance of about eleven rods. Mr. Werden says further, that, although his works were put down late in autumn, and the water carried up this elevation in logs, (which by many were thought to be objectionable if they could be used at all, as more liable to leak,) the concern fully answers his expectation, so that he thinks its utility unquestionable, and the liability to get out of order no greater than that of a common aqueduct. A sufficiency of water is thus elevated to his farm buildings for the supply of a large stock, and for household purposes. In this case the fall is less than six feet. From Mr. Benson's circular we copy the following:—"In one instance, a gentleman having a spring of water in a meadow, 1000 feet from his house, and 85 feet perpendicular depth below it, by the power of a small branch of impure water, that affords five gallons per minute, with a fall of 8 feet, has 730 gallons of pure spring water per day, delivered into a reservoir in his kitchen, by means of this simple apparatus. * * * In another instance, with a stream of water with nine feet fall, the water is elevated to the height of 156 feet."

With regard to the cost of the article, we have been informed that the price of the double ram, or that used for conveying one stream by another, as having a hard water stream carry soft water to the place desired, is, with the right to use, thirty dollars; and that of the single ram, twenty dollars. We believe they are for sale by Mr. Luther Griffing, of this town. From the above statements, Mr. Haywood, or any other gentleman, can gather his own inferences. Our opinion is, that the machine will answer his purpose. However, we would rather have him examine one in operation, and satisfy himself by his own observation. W. BACON. *Richmond, Mass., Feb. 9, 1847.*

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SUFFOLK PIGS.—We have received from WM. STICKNEY, Esq., of Boston, an account of the weights of some swine of various grades of the Suffolk breed. In our Jan. No. we spoke of two pigs we had seen at Mr. S.'s place. In reference to these he says—

"The two hogs you saw at my place in Dec. last, were slaughtered Dec. 9th, and were 16 months 15 days old; were 7-8 Suffolk, 1-8 native. They were not as good as some of the full breed Suffolks. I sold them both in Oct., 1845, and they were kept under a stable on slops and what they obtained from the horse manure, until the last of July, 1846, when I purchased the large one, and kept him on light feed until the first of Oct., when I commenced feeding him. The smaller one I purchased the 1st of Nov., and he had then been fed six weeks. He was sickly when I sold him, and

I think would not have weighed over 30 or 35 lbs. In February I fed with shorts, Indian meal, and a few potatoes and squashes, on which they gained remarkably well. The largest of the two weighed 408 lbs.; his head with the cheeks weighed 18 lbs.; hams 58 lbs.; shoulders 26 lbs.; ribs 48 lbs.; middlings (or clear pork) and leaves (or lard) 258 lbs. The small one weighed 300 lbs.; head 13 lbs.; hams 41 lbs.; shoulders 21 lbs.; ribs 40 lbs."

Mr. Stickney informs us that he has never slaughtered any of his best pigs, not having as yet been able to supply the demand for breeding stock. He sends the following account of the weights of half-blood Suffolks—

"Mr. L. Brooks, of Westminster, Mass., killed two at 7 months and 13 days old, that weighed 273 and 275 lbs. Mr. Howard, of Walpole, N. H., killed one at 13 mos. old, that weighed 378 lbs., another of 12 mos. and 22 days, weighing 369 lbs. Mr. James Titcomb, of the place last named, killed one at 9 mos. weighing 325 lbs.; his neighbor two at 7 mos. and 13 days, weighing 262 and 296 lbs."

Mr. Stickney sends us also a letter from C. Dewolf, of Walpole, N. H., who states that he sold a pig of the Suffolk breed to Mr. McCormick, of that place, which at 7 mos. and 10 days old weighed 325 lbs. Mr. D. adds—

"I sold a pig the same spring to Harvey Stearns, of this town, of the Suffolk blood, which, when six months and ten days old he slaughtered, and it weighed 394 lbs. I sold one to Wm. F. Knapp, of Northampton, Mass., last year; he slaughtered him at 15 months old, and his weight was 515 lbs. I could sell 100 pigs a year of that blood if I had them; they are taking the preference here over all others."

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Agriculture in Delaware.—H. V. L. gives us an encouraging account of the progress of agricultural improvement in this State, which, though small in size, he thinks is "far from being the least in importance." He says: "In a few years New Castle County is destined to become a garden, if the farmers keep up the spirit of emulation which has taken possession of them. In this section of the county we pursue the five course system. 1st year corn, 2d oats, 3d wheat, 4th clover, 5th pasture. I think it the system best adapted to our soil, which is a light loam, with a stiff subsoil of yellow clay. I have been following this plan of culture. The result is favorable so far. I came into possession of this farm five years ago. Then it would not have produced 5 bushels of either corn or oats to the acre. Now it will produce 40 bushels corn, and 45 oats per acre. All this has been done by marling at the rate of 600 bushels shell marl to the acre, and turning under a crop of clover. No manure, or very little, has been put on the land. Marl is found in large quantities in this neighborhood, from 1 foot to 20 feet below the surface of the ground. A bed of shell marl runs all through the northern part of this county, touching the upper part of Maryland, and then into York and Adams counties, Pennsylvania—direction N. W. by S. E. It is not quite as rich in potash and phosphates as the Jersey marl; still it has a large quantity of these substances—enough to justify the farmer to haul it 7 or 8 miles to his land, and to remunerate him well for his toil. It contains a large quantity of lime, which of itself makes it valuable as a manure. This much I can say for it—it is working wonders for us in enrichiug the soil, and producing heavy crops."

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☞J. P. Mitchell, of Frankfort, Kentucky, in a letter to the Cultivator, says: "My neighbors frequently come to me and inquire, 'Why is it that your crops are twice or thrice as large as mine?' and 'Why is it that your land is getting richer and mine getting poorer?' My universal reply is—'I read the Cultivator.'"

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Virginia Crops.—Extract of a letter dated Lynchburgh, Jan. 18, 1847, from Micajah Davis, Jr., Esq.:—"In this part of Virginia our corn, tobacco, oats, fruit and vegetables, were about an average crop; but the wheat was very short; being greatly injured, in many fields destroyed, by the Hessian fly; and what escaped was much injured by excessively wet weather. Indeed we have had but one good crop of wheat since 1839, and rye, once the surest crop we put in the ground, has for years failed to such an extent that few sow it, and nobody accounts for the change. We have had a few cold mornings—mercury at 6°, 16°, 18°, 20° and 23°, but the weather has been generally very mild, and many more at from 45° to 56°, and on the morning of the 16th 60° at sunrise, and frequently 75° and 76° at noon."

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"Ribbon-Stalk Pea."—Mr. W. H. Hayward, of Salem, N. H., informs us that he cultivates a kind of pea under this name, which he thinks may be the same which has been described in the Cultivator under the name of the "Cluster Pea." Mr. H. says: "This pea grows about 3 feet in height, and is of superior quality for the table. It is a medium bearer, and comes in season with the blue imperial. It is peculiar in the stem, which is flat, and sometimes an inch in width; and in its habit of sending out the pods in one cluster at the head of the stalk." He states that he has sent samples of this pea to the horticulturists in the vicinity of Boston, and kindly offers to send some to us. If left with Messrs. Breck & Co., Boston, they will reach us.

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Heavy Pigs.—Mr. James E. Willis, of Bridgewater, Vermont, gives us an account of the weights of thirteen pigs, of *one litter*, which having been killed at an average age of eight and a half months, gave an average weight of 316 lbs. 7 oz. each, or an aggregate of 4114 lbs. One of them, owned by John S. Haines, of the town mentioned, was killed the day it was nine months old, and weighed 425 lbs; P. Smith, of the same place, killed another at ten months old which weighed 428 lbs. The first of the litter was killed at seven months old, and the last at ten. These weights are more extraordinary than any we have ever before heard of, and we much doubt whether their equal was ever known in the same number of pigs of one litter.

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Hedges and Mules for Illinois.—"A Subscriber," who is about to settle in Illinois, wishes to know what kind of hedges are best adapted to that section—their cost per rod, and the length of time which is required to bring them to a state in which they will be "cattle-proof." He wishes also to know the "average price of mules in Illinois, their yearly expense of keeping, modes of feeding, breaking, &c." Can some of our correspondents answer these inquiries?

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Heaves in Horses.—Joel Funk, Urbana, Ohio, says: "Half a pound gum guiacum, dissolved in whisky, and about a gill given to a horse daily, with his feed, is said to be a good remedy for heaves." He further says: "I have a valuable young horse, that is what our Buckeyes call 'heavy-winded.' When driven fast he breathes hard, but when stopped the difficulty ceases. Can any of your correspondents prescribe a remedy?"

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The quantity of beet sugar made the past year in France has greatly exceeded that of any other year, the amount being 88 million pounds.

AGRICULTURAL SOCIETIES.

NEW-YORK STATE AGRICULTURAL SOCIETY.

AGRICULTURAL ROOMS, Albany, Feb. 11, 1847.

Present—George Vail, President; J M. Sherwood, ex-President: Wm. Buel, Sam'l Cheever, C. N Bement, Vice-Presidents; J. M'D. McIntyre, Treas.; B. P. Johnson, Secretary; T. J. Marvin, W. A. Beach, J. T. Blanchard. A Stevens, Executive Committee; E. P Prentice, Dr. A. Thompson, Wm. H. Sotham.

Mr. PRENTICE, from the committee on the premium list, reported that the committee had been unable to complete the list in time for this meeting; and the same was recommitted to the committee to report to the Board at their next meeting—and the Secretary was added as a member of the committee.

Letters were read from Hon. ADAM FERGUSON, Woodhill, Canada West, GEO. GEDDES Esq, Fairmount, W. H. SOTHAM, Albany.

A communication from E. E. M. GALE, M. D., on the cause of abortion in cows, was read, and referred to the committee of publication.

Communications from Hon. BENJ. ENOS, Madison county, and the President, on the adoption of rules for measuring corn crops, &c., were read and referred to the committee on premium list.

Statement of a crop of oats raised by HAMILTON MORRISON, was presented and read, and no premium awarded, as the rules required by the Society as to the measurement of the land, and of the crop, had not been observed by the applicant, nor any sample of his grain presented.

On motion of Mr. STEVENS, the plan of show grounds at Auburn, was ordered engraved, under direction of Messrs. McIntyre, Tucker, and Stevens.

On motion of Mr. JOHNSON, the President, Mr. Sherwood, and Mr. Stevens, were appointed a committee to prepare regulations for grain crops.

The Secretary was directed to return the thanks of the Society to P. L. SIMMONDS, Esq., of London, for his valuable communication to the Society on Grasses, and forward to him the Transactions of the Society for 1844 and 1845.

On motion of Mr. JOHNSON, vols. 4 and 5 of the Society's Transactions were ordered to be furnished to the N. Y. Historical Society.

On motion of Mr. Stevens,

Resolved, That a set of the Transactions of the Society be furnished to the New-York Agricultural Association.

Messrs. JOHNSON, STEVENS, and BEMENT were appointed a committee to superintend the preparation and printing of the Transactions of the Society.

On motion of Mr. STEVENS,

Resolved, That the show and fair of the Society be held at *Saratoga Springs*, on the 14th, 15th, and 16th of September, 1847, and that the first day be devoted exclusively to the examinations by the committees, and the 2d and 3d days to the exhibition—on condition that the persons who have presented a written guarantee to the board, furnish a bond executed by themselves or others, in exchange for the same, at the next meeting of the board—conditioned that this Society shall not be charged with any of the expenses of the fair at that place.

Messrs. HOWARD, BEMENT, and JOHNSON, were appointed a committee to prepare subjects for the weekly agricultural meetings.

Resolved, That the meeting adjourn to Thursday, the 18th inst., at 11 o'clock. A. M. B. P. JOHNSON, Secretary.

P. S. The premium list of the last year, is left with the Secretary, at the Society's rooms, in the old State Hall, where premiums will be paid in the absence of the Treasurer.

Officers of County Societies who have not forwarded their reports, are requested to do so immediately to the Secretary.

Publishers of papers and others who have business with the Society, are desired to direct their papers and letters to the Secretary, at the Agricultural Rooms, Albany.

B. P. JOHNSON, Secretary.

At the meeting on the 18th, the Premium List for 1847, was completed, and will be published in our next.

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VERMONT COUNTY SOCIETIES.

CHITTENDEN.—At the annual meeting of this Society, the following gentlemen were unanimously elected officers for 1847: *President*, Rev. M. Bingham, Williston; *Vice-Presidents*, C. Smith, St. George: F. Wilson, Hinesburgh. *Secretary*, C. Goodrich, Burlington. *Treasurer*, N Stearns, Williston. *Board of Managers*, Henry B. Stacy, Burlington; Thomas H. Canfield, Williston; Orville N. Clark, Milton; Heman H. Newell, Charlotte; Daniel Patrick, Hinesburgh; Geo. Saxton, Shelburne; Orville Shaw, Jericho; Lemuel B. Platt, Colchester; Henry Stanton, Essex; Timothy Sibley, Westford; Levi Whitcomb, Richmond; Samuel Wells, Underhill; John Snyder Huntington; Nathan Lockwood, St. George; Moses Colton, Bolton.

Subsequently the Managers met and made out a Premium List, for 1847, amounting to over $600.

FRANKLIN.—The annual meeting of the Society for this county, was held at St. Albans, on the 19th of January, when the following officers were elected: Benj. B. Newton, *Pres't*. Philo England and Bradley Soule, *V. Pres'ts*. A. M. Huntington, *Treas.* M. F. Palmer, St. Albans, *Sec'y*; and a Board of Managers, consisting of one from each town in the county.

WINDSOR.—The annual meeting of the Society for this county, was held at Woodstock, on the 13th of January, when the following officers were elected for the present year: John Porter, Esq., of Hartford, *President*. Joseph W. Colburn, Esq., of Springfield, and Solon Danforth, Esq., of Barnard, *Vice-Presidents*. Charles Marsh, Jr., of Woodstock, *Sec'y*. Norman Williams, Woodstock, *Cor. Sec'y*. Eliakim Johnson, of Woodstock, *Treasurer*. A Board of Managers, consisting of one or more persons in each town, was also appointed. The Treasurer reported the receipt of $605.45—Payments $303 63, leaving a balance of $302.82 in the Treasury.

ADDISON.—At the annual meeting, held at Middlebury, on the 27th Jan., the following officers were elected: Hon. Silas H. Jenison, *President*. Elias Bottom and David Hazard, Esq., *Vice-Presidents*. Elijah W. Blaisdell, Jr., *Sec'y*. Julius A. Beckwith, Esq., *Assis't. Sec'y*. Harrry Goodrich, *Treasurer*. A Board of Managers, consisting of one from each town, was appointed.

RUTLAND.—The annual meeting was held at Rutland, on the 6th Jan., when the following officers were elected:—Hon. Frederick Button, of Clarendon, *President*; W. L. Farnum, Esq., of Poultney, and W. R. Sandford, Esq., of Orwell, *Vice-Presidents*; J. C. Thrall, of Rutland, *Rec. Sec'y*; Samuel H. Kellogg, Esq., of Pittsford, *Auditor*; Hon. W. C. Kittridge, of Fairhaven. *Cor. Sec'y*. Also a Board of Managers, consisting of one from each town in the county.

☞ For notice of Premium Crops of these Societies, see article on "Crops of Vermont," in another part of this paper.

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CONNECTICUT COUNTY AG. SOCIETIES.

HARTFORD.—At the annual meeting of the Hartford Co. Ag. Society, held at Hartford, Nov. 4, 1846, the following persons were appointed officers for the year ensuing:—D. W. Grant, of Bloomfield, *President*; Egbert Cowles, of Farmington, and Norman Porter, of Berlin, *Vice-Presidents*; Francis Gillette, of Bloomfield, *Cor. Sec'y*; F. A. Brown, of Hartford, *Rec. Sec'y*; A. W. Butler, of Hartford, *Treas.*; Julius Catlin, of Hartford, *Auditor*.

At the same time, the usual Committees for awarding Premiums for the year, and Town Committees of three in each town, were appointed.

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NEW-YORK COUNTY SOCIETIES.

WAYNE.—At the annual meeting, Jan. 9th, the following officers were chosen for 1847:—*President*, Reuben H. Foster, Lyons; *Vice Presidents*, Joseph Watson, Galen; Joel Hall, Marion; James H. Ferris, Butler; Wm. P. Nottingham, Palmyra; Henry Shaver, Jr., Arcadia; Jedediah Wilder, Huron; W. D. Cook, Sodus. *Rec. Secretary*, E. N Thomas, Rose. *Cor. Secretary*, J. J. Thomas, Macedon. *Treasurer*, G. H. Dickerson, Lyons. *Executive Committee*, Samuel E. Hudson, Palmyra; Truman Hemingway, Palmyra; Wm. R. Smith, Macedon; Aaron Griswold, Galen; A. G. Percey, Lyons; Elizur Flint, Rose.

CHAUTAUQUE.—At the winter meeting of this Society, the following premiums were awarded:—

Indian Corn.—1. To Jabez Burrows, of Chautauque, 114 bushels per acre—2. To Melchert Thumb, of Ellery, 98 bu. 27 lbs.—3. To Elam C. Bliss, Westfield, 78 bushels.

Wheat.—1. To Geo. Hull, Westfield, 39 bu. 26 lbs. per acre—2. To Timothy Judson, Portland, 34 bu. 50½ lbs.—3d. To Elam C. Bliss, 29 bu. 2 lbs.

Spring Wheat.—2d prize to E. C. Bliss. 25 bu. 29 lbs. per acre. To the same, 2d premium for *Barley*—1st for *Flax*.

Carrots.—1. To E. C. Bliss, 194½ bu. on one-eighth of an acre—2. To W. & L. Risley, of Promfret, 163 bu. on one-eighth of an acre.

Potatoes.—1. To Lemuel Cottrell, of Chatauque, 154 bushels on half-acre—2. To E. C. Bliss, 131 bu. [The list of officers for this year we have not seen.]

GREENE.—Officers for 1847:—*President*, Hon. Zadock Pratt, Prattsville; *Vice-Presidents*, Uriah Stevens, George Beach, J. T. Cook, C. L. Kierstead, and Stewart Austin; *Rec Secretary*, H. L. Day; *Cor. Secretary*, R. Van Dyke; *Treasurer*, Stephen Hotchkiss; *Ex. Committee*, John McGiffert, of Athens; Morris Hallock, of Coxsackie; Joel Wickes, of Cairo; William Newkirk, of Catskill; Cyrus Field, of Durham; George Budd, of Greenville; Marcus Beach, of Hunter, Isaac B. Hinman, of Lexington; Anthony Van Bergen, New Baltimore; Henry Larraway, Prattsville; James Robinson, Jr., of Windham.

OSWEGO.—The seventh annual meeting of the Oswego Co. Ag. Society was held on the 6th Jan., at Mexico, when the following officers for the ensuing year, were appointed, viz:—Bradley Higgins, of Richland, *President*; Samuel Foot, Phœnix, and John Baker, Parish, *Vice-Pres'ts.*; I. W. Tiffany Mexico. *Treas'r.*; E. C. Mitchell, *Rec. Sec'y.*; Joseph E. Bloomfield, Mexico, *Cor. Sec'y*; John Woodbury, Richland; A. Herbert, Mexico; and Levi Matthews, Mexico, *Ex. Committee*; H. L R. Sanford, Fulton; G. L. Sherwood, Richland; and J. N. Dewey, *Com. on Printing*.

The next fair is to be held at Mexico, on the 29th and 30th days of Sept. next."

MONTHLY NOTICES—TO CORRESPONDENTS, &c.

Communications have been received, since our last, from J. M., J. Grimsha, Gulielmus, Benj. Leas, Wm. R. Prince, Wm. Bacon, Young Farmer, Prof. John P. Norton, John Wilkinson, John Pettibone, F. G. Ruffin, A Subscriber, T. H., W. H. Hayward, Wm. Bacon, J. F. J., H. V. L., H., Passenger, H., Ann, J. F., Geo. Vail, Paul Davidson, J. Townsend, A Subscriber, B. M. J., T. H. Collins, A. C., L., J. F. Allen, A Cayuga Wool Grower, X. Y. Z., Subscriber, E. V. W. Dox, Za. Drummond, S. E. Todd, A. F., J. Sherman, D. E. Gardner.

Books, Pamphlets, &c., received last month, as follows :—First Annual Report of the Ohio State Board of Agriculture, for 1846, from M. B. Bateham, Ed. Ohio Cultivator, and E. G. Squier, Esq.——Catalogue of the Officers and Students of the Western Reserve College, Hudson, Ohio.——Address before the Tompkins Co. Ag. Society, by B. G. Ferris, Esq.——Catalogue of the Astoria Nursery, by L. Prevost.——Catalogue of Lafayette College, Easton, Pa., from H. W. Crosby.——The Horse's Foot, and how to keep it sound, with illustrations. By Wm. Miles, Esq., New-York. Published by Appleton & Co.——The American Poulterer's Companion, by C. N. Bement ; fifth edition. Published by Harper & Brothers.——The Battle of Life, a love story, by Charles Dickens, (Boz.) Philadelphia, Lea & Blanchard. Price, 6¼ cts.——First and Second Geological Reports of Vermont, from the publisher, C. Goodrich, Burlington.——Report of the Massachusetts State Lunatic Hospital, from Dr. Geo. Chandler, Superintendent.——Laws and Regulations of Franklin College, Tenn.

Prof. E. N. Horsford.—Our readers have been made acquainted with this gentleman through his interesting and valuable correspondence with the Cultivator, during a residence of two years in Germany, where he has been ardently and assiduously engaged in chemical investigations under the direction of Baron Von Liebig. Prof. H. has been eminently successful in his scientific labors, and leaves the Giessen Laboratory with the highest recommendations of the great teacher of that world-renowned Institution; and we are happy to add, as good evidence that his excellent qualifications are duly appreciated by his countrymen, that he has lately been appointed to the Rumford Professorship in Harvard University, at Cambridge, Massachusetts. We understand that arrangements have been made by which Prof. H. will devote himself principally to original investigations in chemical science, in which he has already shown that he is capable of accomplishing important results. One or two of his elaborate papers have appeared in the Cultivator, and his "Chemical Essays," giving the results of his analyses of "Grains and Vegetables," "*for the purpose of estimating their separate values for nutrition*," which have been published in a separate form, both in the German and English language, are of great interest and value to every class in the community.

Kiln-Drying Indian Corn and other Grain.—Will some one have the goodness to furnish us with a description of the process of kiln-drying grain, especially Indian corn, with a statement of the expense?

Railroads.—We have received from a correspondent at Lyme, N. H., a sensible and well-written article on the subject of Railroads, and the advantages which he believes will accrue to that section from the proposed Boston and Vermont road. We have no doubt that these advantages are fully as great as represented, but as the matter is somewhat irrelevant to our object, we cannot consistently publish the article, especially as its insertion would necessarily exclude other communications.

Timothy Hay.—In a late conversation with Mr. John Hammond, of Worcester, Mass., he observed that he had rather have good "swale or bog hay," cut green and well made for his cows, (of which he keeps a pretty large herd) than common timothy, or, as it is called in New England, "herds-grass" hay. This conclusion was the result of his own observation and experience, and we found the same idea was held by many farmers in that section. Like opinions are also entertained in other parts of the country, as may be seen by examination of the Cultivator for 1844, pp. 45, 140.

Lambs Born Dead.—"A Young Farmer," of Geneseo, informs us that he had in the winter of 1845–6, 200 ewes, which had been selected for the purpose of raising lambs. "About the 20th of March," he says, "they commenced dropping their lambs perfectly dead, it being one month before their time. They continued in this manner until the 20th of April, the proper time for the lambs, when I found that I had lost 100. All that came after that time were alive and apparently healthy. The sheep were fed nothing but *plenty* of good hay, and were well littered with wheat straw the fore part of the winter, and oat straw the latter part." Can any one give the reason for the abortion ?

Dutchess Agricultural Institute.—We are requested to state that the summer session o this institution will commence on the first Thursday of April next. The particulars in reference to the course of instruction here pursued, may be found by reference to an advertisement published in the last volume of the Cultivator, page 326. The Principal of the Institution in an article intended for our columns, but which is crowded out by a great pressure of other matters, observes: "Believing that we have given perfect satisfaction to our patrons, we respectfully solicit a continuation of their support, which we hope to merit by furnishing adequate means to our pupils for the acquirement of valuable knowledge."

Durham Cattle.—G. V. Sackett, Esq., of Seneca Falls, lately killed a Durham cow, four years old, which weighed 1009 lbs., of which the four quarters were 848 lbs. She had brought two calves, one of which was dropped only five or six months before she was killed. A few years since Mr. Sackett killed the Durham cow Sylvia, (bred by C. N. Bement, Am. Herd-book, p. 110.) She had been an uncommon cow for the dairy—having produced 16 lbs. of butter per week, and was never dry from the time she dropped her first calf, at three years old, till a few months before she was killed, when she was eleven, yet she weighed 1184 lbs.

Hall's Brick Machine.—This machine was invented by Mr. Alfred Hall, of Perth Amboy, New Jersey, (late of Coxsackie, N. Y.) and has been patented in the United States and Great Britain. It is considered, by those acquainted with brick-making, superior to any other machine yet used for this purpose. It received the highest premium awarded by the American Institute for brick-making machinery, in 1844. We notice by the English papers that it was exhibited

at the show of the Smithfield Club, London, in December last. In relation to its construction and operation, it is observed—"It consists of a pug-mill upon an improved principle, to which the moulding apparatus is so attached that the clay, after passing through it, is forced immediately into a series of moulds prepared to receive it. The bricks made by this machine are much sounder than those made by hand, and with the power of one horse and two men, [with two boys carrying off] from 6,000 to 10,000 of brick can be produced in a day."

WEEKLY AGRICULTURAL MEETINGS.—The use of the Assembly Room having been granted to the Agricultural Society for the purpose of holding evening meetings for the discussion of Agricultural subjects, the meetings have been commenced, though only two have yet been held, at which "PLOWING," formed the subject for discussion. A report of the discussion has been published in the daily papers of the city; but we are obliged to omit its insertion in our columns in consequence of the great press of communications from our correspondents. We shall endeavor, however, to furnish an abstract of the discussions in our April number.

FARMER'S CLUB.—The citizens of Stockbridge, Mass., have formed a society under the name of "Farmers' Association of North Stockbridge." The members agree to meet at each others' houses, every fortnight, in the winter season, "for the mutual interchange of knowledge." Each member pledges himself to make some experiment in farming in the course of the season, and make an accurate report to the association at the end of harvest, of the details and results, that the knowledge thus gained by one may become useful to all. We are informed that "the meetings have been regularly held and generally attended. The association at first consisted of six or eight members. It has increased in interest and now has twenty-three members. They are satisfied that they have by their meetings added much to the amount of social pleasure, and something to their stock of profitable knowledge." The association proposes to raise by subscription a fund of at least $500, to be given in premiums of different amounts, from $20 to $150, for the best varieties of choice fruit trees, from twelve to seventy-five in number, that shall be planted after the formation of the society. The association have appointed DANIEL D. KENDALL, H. W. BISHOP, H. H. COOK, JOHN HOTCHKIN, OLIVER DEWEY, and CHARLES SEDGWICK, a committee to solicit subscriptions, and have appointed JOHN HOTCHKIN, Treasurer. We spoke, in the February number, of the advantages of Farmers' Clubs, and we are glad to hear that the people in various sections are taking measures to form them.

DEATH OF DISTINGUISHED FRIENDS OF AGRICULTURE IN ENGLAND.—Sir CHARLES MORGAN died at his residence, Tregedar, in Wales, on the 5th of December, aged 86. He was a most beneficent patron of agriculture, and had for many years held an annual agricultural show on his own estate, open to general competition, and as we have been lately informed by our countryman, Mr. COLMAN, had himself given more than twenty-five thousand dollars in premiums. Mr. C. mentions having attended the two last of this gentleman's shows, and says he witnessed "the grateful enthusiasm with which this agricultural patriarch was received among his attached neighbors and friends."

Wm. YOUATT, Esq., died in London on the 9th of January, aged 70. Mr. Y. was a veterinary surgeon of the highest distinction, and was well known both in Europe and the United States as the author of the works entitled, "The Horse," "The Sheep," and the "Ox," published by the Society for the Diffusion of Useful Knowledge. He was also the author of a highly popular and useful work lately re-published in this country on the "Dog." The *Mark-Lane Express* says—"He was a proprietor and joint editor of 'The Veterinarian,' the first periodical publication exclusively devoted to veterinary matters; had he lived a few days longer he would have witnessed the publication of his last work, 'The history of the Pig,' on which for some years he has been engaged, and which will be published in a few days, thus completing his series of Domestic Animals."

PRICE OF GUERNON'S TREATISE ON MILCH COWS.—In the advertisement of this work, published in our last number, it was said, "THREE copies for $4." It should have been *one dollar*. The price of the book is 37½ cents for single copies, and *three* copies for one dollar. It can be had at most of the cheap publication offices in the country, or it can be obtained of the publishers, GREELEY & MCELRATH, Tribune Office, New-York, who will send three copies by mail for $1.

ANSWERS TO INQUIRIES

KENDALL'S CHURN.—MACHINE FOR CUTTING MEAT.—GRANT'S FANNING MILL.—J. W., (St. Stephens, Ala.) Kendall's churn is of cylindrical form, and the churning is performed by a shaft with arms, attached to a crank. There are five sizes; number one is seven inches by twelve, in the clear; and the other sizes are regularly larger; each being one inch in diameter and one inch in length larger than the size next smaller. The prices are 2, 2¼, 3¼, 4, and 4¼ dollars. Wiltsie's sausage cutter is a good machine, and with one man will cut 100 pounds of meat in an hour, ready to be made into sausages. The price is $15. It is about one foot square. Grant's fanning mill is considered the best in use. There are four sizes—the prices, 21, 23, 25, and 27 dollars.

BLACK-LEG IN CATTLE.—M. B. F., (New Britain, Ct.) We have but little doubt that the disease you mention is the black-leg. The best preventive is believed to be regular and good feeding. In an essay on the management of stock, which received a prize from the Highland Society of Scotland, it is stated that a liberal allowance of turneps with a pound of oil-cake to each calf, had been found a specific against this disease. The great object is is to keep up a healthy circulation of the blood, and this may be in a great measure accomplished by the use of excellent food, aided if necessary by cathartic medicines. In cases where animals are already attacked, it is recommended to divide the large vein in each foot, with a knife, just above where it branches off to the hoof. A tea-spoonful of saltpetre, given to the animal every other day, is said to have been found useful.

ICE-HOUSES AND SMOKE-HOUSES.—J. H. C., (New Albany, Ind.) It is too late to give a plan of an ice-house for this season. We would refer you to the December number of the *Horticulturist*. As to smoke-houses, we should prefer building them with brick or stone.

OIL FOR PAINTING OUTSIDE OF BUILDINGS.—J. F., (Venice, N. Y.) Boiled oil is preferred to raw, where the paint is to be exposed to the weather.

ITALIAN RYE GRASS.—J. W., (Dutchess Ag. Inst.) We have tried this grass to some extent; but except for early pasture we cannot say that it has any particular advantages over the kinds in common cultivation.

CURING CORN FODDER.—F. G. R., (Charlottsville. Va.) Corn fodder, cut green, requires a great deal of drying, (much more than clover or timothy,) and there sometimes comes a season in which it is almost impossible to cure it. The best way which we have practiced, is to cut the corn with a cradle or "corn-cutter," as soon as it is out of blossom; let it lie on the ground a day or two till it is dried on the outside; then tie it in small bundles as near the top as possible, and put it in small shocks, leaving the bottoms open to admit the

air, and binding the shocks close to the top. If winds upset the shocks, they should be re-set, and they should remain out till the fodder is perfectly dried, when it may be put either in barns or stacks.

HORNLESS CALF.—G. K. P., (Wadsworth O.) We are inclined to think that the want of horns in your calf, is attributable to the blood of some hornless breed, which now "crops out," though it may not have appeared in the immediate progenitors. We have known this peculiarity to appear, after it had remained undeveloped for several generations. It is possible, however, that it may be as you suggest, an "accidental circumstance;" if so, like other traits of similar origin, it may be to some extent transmissible to offspring.

HAY PRESSES.—D. H., (New Albany, Ind.) There are hay presses in operation which are thought preferable to those worked by a screw. Of these, VAN HOSEN'S press, spoken of in the Cultivator vol. ix., p. 66, and DEDRICK'S in vol. x., p. 172, are considered superior. The price is from $100 to $120. L. DEDRICK, Kinderhook, and W. S. JACKS, Catskill, are the manufacturers.

HEIFER.—"A SUBSCRIBER," (Lewisburg, Penn.) Without a personal examination of your animal, or more definite knowledge in relation to her, it is impossible to say what is the cause of her failing to give as much milk with her second calf as she did with her first. As she is, from your description, a fine animal in appearance, we should advise keeping her another year, when she may do better.

DRILL-BARROWS, ROLLERS, &c.—B. L., (Shirleysburg, Pa.) Planting machines, or drill-barrows, to do what you require, will cost here from $12 to $15. Rollers should be made in two or more parts. The whole length may be from five to seven feet long. If of cast iron, the longest should be in four parts, and the shortest in two. If made of wood, six feet in two parts is the usual length. [See an article on the roller in last vol. p. 111.]

NOTICES OF NEW PUBLICATIONS.

The Horse's Foot, and How to Keep it Sound; by William Miles. Re-published from the third London edition, by D. Appleton & Co., New-York. 12mo. pp. 70. Price, 25 cents.

The importance of soundness in the horse's foot is so well known to all who have had any experience with that animal, that the expression "*no foot no horse*," has become a saying. The little work before us, is evidently written by one who understands the subject and is capable of imparting useful knowledge to others. It is very handsomely "got up," and is illustrated with good cuts, showing the anatomy of the horse's foot, modes of shoeing, &c.

First and Second Annual Reports on the Geology of the State of Vermont. By Prof. C. B. Adams, State Geologist. Burlington, C. Goodrich. 8vo., pp. 360. Price 75 cents.

The geological survey of this State was commenced we believe in 1844, by Prof. C. B. ADAMS, of Middlebury College. We are indebted to the publisher, Mr. GOODRICH, for copies of the first and second reports. A glance at the subject matter shows that the State has been found rich in internal resources, especially in iron, and rocks valuable in the arts. These, with the means which the people will soon enjoy in the facilities of railroad communication, will, without doubt, give increased wealth and prosperity to the State. A few copies of these Reports have been left at the Cultivator Office for sale.

The Child's First Book of Reading and Drawing. By Jerome B. Howard, Teacher of Drawing in the New York State Normal School.

This book is a combination of the Verbal and Phonic methods which are adopted by many of the best teachers of our country. The design of the author is to teach the child to read *at once*, without spending his time with the uninteresting and unmeaning *a b ab's*. The *Verbal Combinations* are designed and well calculated to remedy the vile habit of reading with that monotonous, *drawling* tone, which every teacher knows is so hard to cure. The book is also intended to teach Drawing, there being connected with it a system of Drawing lessons, with directions enabling the teacher, though himself unable to draw, to successfully direct the child. We consider this a very useful and important part of the work. Educationists are beginning to see the importance of having Drawing taught in our common schools. The plan of the book, though entirely new, appears to us very judicious, and it has been already introduced with success into many of our schools, and bids fair to become very popular. Its author has bad considerable experience as a teacher, and we have repeatedly witnessed the rapid progress of schools under his direction.

A Brief Compend of American Agriculture. By R. L. Allen. New-York, Saxton & Miles. 12mo., pp. 438. Price $1.

An advertisement of this work will be found in this number, to which we would call attention. We gave a favorable notice of it in our November No. of last year. A further examination of the book has confirmed the opinion then expressed. A cotemporary in noticing it, observes—"We think, therefore, that Mr. ALLEN'S volume, the basis of which is good practical farming, as practiced by the best cultivators in the United States—with an intelligent reference to those principles of science which lie at the root of all successful practice, is likely to be of much more real service to us than any work on agriculture yet issued from the press, and we gladly commend it to the perusal of every one of our readers engaged in the cultivation of the land."

THE AMERICAN POULTERER'S COMPANION: a practical treatise on the breeding, rearing, fattening, and general management of the various species of domestic poultry, with illustrations, and portraits of fowls taken from life. By C. N. Bement. Fifth edition. New-York, Harper & Brothers, publishers, 82 Cliff st. pp. 380. 12mo.

The fifth edition of this work, from the press of the Messrs. HARPERS, New-York, is before us. As a work of practical value, it is beyond all question superior to any other of the kind before published in this country; and the favor with which it has been received by the public is shown by the rapidity with which it has passed through the four previous editions. We are happy to see that the present edition embraces some improvements over the previous ones—particularly in the quality of paper, clearness of type, and the arrangement and appearance of the illustrations. We presume the work will continue to meet with a ready sale.

The Prairie Farmer; devoted to Western Agriculture, Mechanics and Education. Chicago, J. S. Wright and J. A. Wight, editors. Monthly, 32 pp., 8vo. $1 a year.

We can heartily recommend this paper to our western friends especially, and to all who wish a well conducted paper of the kind. All those who contemplate a removal to the west, should take it, as it will afford them information which cannot fail to be of great service, both before and after their removal.

The Farmer and Mechanic; devoted to Agriculture, Mechanics, Manufactures, Sciences and the Arts. New-York, published by Wm. H. Starr. Quarto, weekly, $2 a year.

This publication, of which we have before made favorable mention, commenced its present volume in January last, in the quarto form, and with greatly improved appearance. Much spirit and ability are displayed in its management, and it is certainly a valuable publication. We are happy to learn that it is well patronized by the class for whom it is designed, and who are no

doubt sensible of the benefits to be derived from such a medium of communication.

American Journal of Agriculture and Science. Conducted by Dr. E. Emmons and A. Osborne. New-York, Huntington & Savage. 8vo., pp. 64. Monthly, $2 a year.

This work, which, at the commencement of the present year, was changed from a quarterly to a monthly, is devoted to the dissemination of useful knowledge, relating to science, the arts and agriculture, and the promotion of sound views in education. It is ably edited, and should have a wide circulation.

Eureka, or the Journal of the National Association of Inventors; devoted to the Discoveries of Science and Invention in the Arts. New-York, published by Wm. H. Starr. Monthly, quarto, at $1 a year.

The Eureka is neatly printed, and makes a good appearance. It publishes monthly lists of patents issued from the United States Patent Office, and gives the earliest notice of all new inventions, with diagrams and illustrations of the articles to which they refer—comprising altogether much valuable information.

The Farmer's Agricultural Chemistry; compiled from the best authors; by M. M. Rodgers, M. D.; adapted to the use of common schools. G. H. Derby & Co., Geneva, N. Y.

This is a small manual relating chiefly to chemistry, botany, and mineralogy, compiled principally from the writings of Liebig, Thaer, Petzholdt, Johnston, and Chaptal. An appendix is added, embracing brief remarks on tillage—insects, and modes of avoiding their ravages—weeds, and modes of extirpating them—and grafting, by different modes. We have not examined it minutely, but observe that the various subjects are treated in a plain manner, and we cannot doubt that the book contains valuable matter for the class for which it is designed.

The Medico-Chirurgical Review, and Journal of Practical Medicine. London, Quarterly. Re-published in New-York by R. & G. S. Wood. $5 a year.

This is unquestionably one of the most valuable medical journals published in the world. It is conducted by several of the most able physicians in London, and furnishes a vast amount of information on every subject connected with the practice of medicine.

COLMAN'S EUROPEAN AGRICULTURE, Part VIII.—This is one of the most interesting numbers of this excellent work which has yet appeared. We had intended to give a pretty full view of its contents in this number, and have a long article in type, which we have been obliged to postpone. An article on the "Cultivation of Hops," derived chiefly from the part under consideration, will be found in another part of our present number.

FAT MEAT.

AT the Centre Market in this city, on the 22d of February, there was a fine show of fat meat. We noticed the following:—

BEEF.—E. KIRKPATRICK had the carcass of a five year old ox, said to have been a cross of Durham and common stock, bred by N. C. SWEET, of Clifton Park, Saratoga county, weighing, 4 quarters, 1,570, hide, 113, tallow 203 = 1,885 lbs. The quality of the beef was very fine.

D. MAHONEY had the carcass of a spayed heifer, four years old, a grade Durham, bred by F. ROTCH, of Butternutts, Otsego county, weighing, 4 quarters, 1,200, hide 100, tallow 150 = 1,450 lbs. For weight in proportion to bone, this animal was most extraordinary.

P. & J. FREDENRICH and J. MCQUADE had the carcasses of three pair of cattle fatted by WM. CHAMPLIN, of Sherburne, Chenango Co., which weighed as follows: two six year old oxen, 3,600; two do. five years old, 3,000; two do. four years old, 2,900.

PORK.—GEO. SCHWARTZ had three large hogs. Two of them were fattened by Mr. WOOLFORD, of this city. They were a cross of the Cheshire, and were two years old. The barrow weighed 718 lbs.; the sow, which reared a litter of pigs last summer, weighed 524 lbs. The other was a Berkshire hog about two years old, which weighed 516 lbs.

MUTTON.—E. KIRKPATRICK had the carcases of 13 South Down wethers, bred by F. ROTCH, Butternuts, Otsego county, from one year and a half to two years old, which weighed from 63 lbs. to 97 lbs. each. They were of very fine quality.

H. FEATHERLY had the carcasses of six sheep, fattened by N. JENKINS, of Glen, Montgomery county, weighing from 106 to 128 lbs. They were chiefly of Leicester or Bakewell breed, and of superior appearance.

PRICES OF AGRICULTURAL PRODUCTS.

New-York, Feb. 18, 1847

FLOUR—Genesee, per bbl, $7.25.

GRAIN—Wheat, per bushel, $1.61a$1 75—Rye, 95c.—Barley, 82—Oats, 48a50—Corn, Northern and Jersey, 97a100.

BUTTER—Orange County, per lb., 22c.—Western dairy, 14c.—Ohio, 12½c.

CHEESE—Best shipping, per lb., 6½a7¾c.

BEEF—Mess, per bbl., $12—Prime, $9a$9.50.

PORK—Mess, per bbl., $15—Prime, $11.75a$13.

HAMS—Smoked, per lb., 7½a9 cts.

LARD—Per lb. (new) 10c.

HEMP—Russia, clean, per ton, $215—American, dew-rotted, $115.

HOPS—Per lb., first sort, 9a11c.

TOBACCO—Connecticut, per lb., 10a11c—Kentucky, 3½a4c.

SEEDS—Flax, per bushel, $1.25a$1.30—Clover, per lb., 8½c.—Timothy, (herds-grass,) per bu., $2.50.

COTTON—New Orleans and Alabama per lb., 10½a14½c.—Upland and Florida, 10½a12½c.

WOOL—(Boston prices.) Feb 19:

Prime or Saxon fleeces, washed per lb.....	40a45 cts.
American full blood fleeces,.....	33a38 "
" three-fourths blood fleeces,.....	30a33 "
" half blood do	28a30 "
" one-fourth blood and common,.....	25a28 "

REMARKS.—The exports of flour from New-York, from the first to the sixteenth of February, were 95,437 barrels. The exports of grain for the same period, were 449,850 bushels corn; 93,959 do. wheat; 37,588 do. rye; 18,824 do. barley; 2,010 do. oats. The export of provisions for the same period were 2,101 bbls. beef; 1,211 do. pork; 4,298 kegs lard. Beef is rather dull, and there is not as much briskness in the grain market as prevailed a few days since—all seem waiting for the English steamer which at this date had not arrived at Boston.

POSTSCRIPT.—Since the above was written the Cambria has arrived at Boston, bringing news from England to the 4th of February. There has been a considerable decline in breadstuffs, but the provision market was firm. The decline in wheat is 4s. to 5s. per quarter; Indian corn 4s. per quarter; flour 4s. (about one dollar) per barrel. The demand for American lard, beef, pork, and cheese, was good, and prices were well supported. Prices of cotton and woolen fabrics were very irregular. The news, however, seems to have but little effect on the New-York market. Flour in that city on the 23d of Feb, was steady at $7 for Genesee, and $6.87½ for Michigan. Corn was brisk at 95c. to 100c.—sales 60,000 to 70,000 bushels. Provision market remained without much change.

LIVE STOCK MARKET.

Brighton, Mass., Monday, Feb. 15.

At market 550 Beef Cattle, 13 yokes of working Oxen, 32 Cows and Calves, 1700 Sheep and about 72 swine.

BEEF CATTLE.—Extra at $6.50—first quality, $6—second quality, $5.25@ $5.50.

WORKING OXEN—Sales were made at $74, 78, and 92.

COWS AND CALVES—Sales were made at $21, 24, 29, and $34.

SHEEP.—Sales were made at the following prices:—$1.63, 1.67, 2.13, 3.12, 3.75, 5.25, and $6.

SWINE.—Sales were not noticed, there being but few at market.

N. B. There being a large supply of Beeves at market, prices were hardly sustained, and a large number remain unsold at the close of the market.—[Traveller.]

PRICES OF WOOL, in Western New-York, for the last eleven years:

1835,	average price	35	cents	per pound.
1836,	do	36	do	do
1837,	do	37	do	do
1838,	do	35½	do	do
1839,	do	47½	do	do
1840,	do	33	do	do
1841,	do	36½	do	do
1842,	do	30½	do	do
1843,	do	28	do	do
1844,	do	39½	do	do
1845,	do	29½	do	do
1846,	do	24	do	do

PRESERVATION OF HAMS.—As soon as the ham is taken from the brine, and while yet wet, dust the flesh part with finely ground black pepper. This renders it so repulsive to the flies that they will not deposit their eggs. An experienced farmer stated some years ago, that he preserved his bacon from the attacks of the fly, by burning a small quantity of red pepper on the fire used for smoking.

BOX FOR EDGINGS.

ONE Thousand yards Box Edgings, for sale at a low rate. Apply at the Agricultural Warehouse, No 10 Green-st, Albany.
March 1—2t. LUTHER TUCKER.

FRUIT TREES FOR SALE.

THE subscriber respectfully informs the public that he still continues the Nursery business, about one mile north of the Steamboat Landing, in the Village of Newburgh, and directly opposite (East) of the Powellton House.

All orders (post-paid) punctually attended to.
March 1—2t CHAS. DOWNING.

HIGHLAND NURSERIES.

NOTICE.—A. J. DOWNING having retired from the Nursery business heretofore conducted at Newburgh under the firm of *A. J. Downing & Co.*, the same will be continued by the subscribers. They will not only endeavor to maintain the high character which these Nurseries have had, for a long time, but, as the present stock is gradually drawn from Mr. D.'s grounds, they will greatly enlarge the Nurseries, and endeavor fully to meet the constantly increasing demand for the trees grown here.

Orders addressed to the subscribers *post-paid* will receive prompt attention, and all trees, shrubs, plants, &c., will be carefully packed and shipped to any part of the Union. A SAUL & CO.
Highland Nurseries, Newburgh, Feb. 15, 1847.

The undersigned strongly recommends the above Nursery firm to public confidence.

The practical management of the Nurseries will be in the hands of Mr. A. SAUL, who has been at the head of this department here for the last eight years, and his accuracy and fidelity in the propagation of fruits and general care of the Nurseries, during that time, are the best guarantee for the faithful and careful manner in which the business will hereafter be conducted.

A. J. DOWNING.
Highland Garden, Newburgh, Feb. 15, 1847. Mar-1t

COMMERCIAL GARDEN AND NURSERY, OF PARSONS & Co.

Flushing, near New-York.

THE proprietors of this establishment are constantly increasing their stock, which now covers nearly seventy acres of ground, and includes every desirable variety of Fruit and Ornamental Trees, Shrubs, Roses, Vines, &c. Their possession of specimen grounds for the testing of every variety of fruit they cultivate, affords them increased facilities for the attainment of correctness. They would also call attention to their large assortment of Foreign Grapes, some seventy varieties of which they are fruiting under glass.

To venders, and those who purchase in large quantities, liberal discounts will be made. Catalogues can be obtained gratis of PARSONS & LAWRENCE, 10 Pine st.; of A. B. ALLEN, 187 Water st., New-York, or of the proprietors by mail.
March 1, 1847—2t.

SEED POTATOS FOR SALE.

A FEW hundred bushels of Hall's Early June Potatoes. This variety after a cultivation of four years, has proved, when planted early, unaffected by the potato disease. It is the best early potato raised for market, grows large, produces a fine crop, and is an excellent potato for fall and winter use. Several persons who applied last year through Comstock & Co., and were not supplied, have the preference this year by an early application. Orders may be addressed to the subscriber, or left at the Agricultural Warehouse of Luther Tucker.
March 1—2t. WILLIAM HALL.

PLOWS! PLOWS!!

THE attention of Farmers and Dealers is particularly invited to our assortment of Farming Tools—among which may be found a complete assortment of the most approved as well as common plows, including all sizes of the Center Draft, Side-Hill, Subsoil, Self-Sharpening Plows, from Messrs. Prouty & Mears, of Boston. Also, the Eagle, Subsoil, Side-Hill, Self-Sharpening, and others, from Messrs. Ruggles, Nourse & Mason, of Worcester, Mass. Also, the Peekskill Plow, all sizes, from Minor & Horton, of Peekskill, N. Y., and Delano's Diamond Plow—all for sale at the manufacturers' home prices, and warranted. The adjustable Steel Point Self-Sharpening Plows, from the factory of Messrs. Ruggles, Nourse & Mason, is just received. This is a new improvement in the wearing parts of the plow, and has several advantages over the common plows in use. (See R. & N.'s advertisement.) Also on hand Cultivators, Harrows, Seed-Sowers, and Planters, Ox-Shovels or Scrapers, Field Rollers, &c., &c., &c., at the Albany Agricultural Warehouse and Seed Store, Nos. 10 and 12 Green-st., Albany, N. Y. L. TUCKER.

ALBANY SEED STORE,

No. 10 Green-Street.

THE subscriber has now on hand at the above establishment, a general assortment of FIELD, GARDEN, and FLOWER SEEDS, warranted of the best quality, and which will be sold at as low rates as at any place in the country. Among the assortment, are the following:

GRASS SEEDS.—Timothy, Orchard, Red Top, Western, and Northern Clover, &c., &c.

SPRING GRAINS.—Black Sea Wheat, Rye, Barley, Buckwheat, Millet, Peas, Indian Corn, &c., &c.

ROOTS.—Hall's Early, Carter, and other kinds of Potatoes—Altringham, Long Orange, and Large White Carrots—Ruta-Baga, Mangold Wurtzel, Sugar Beets, &c., &c.

GARDEN AND FLOWER SEEDS of all kinds.
March 1. LUTHER TUCKER.

SENECA LAKE.

A BEAUTIFUL FARM for sale, lying on the east side of the Seneca Lake, Seneca Co., N. Y., about 7 miles south of Geneva, containing about 159 acres of the best quality of land. There is about 50 acres of excellent wood and timber land, and the arable and meadow land is of the best quality and in good condition. Lowest price $50 per acre. The one-half of the purchase money may remain on bond and mortgage for many years. Title good. The farm may be viewed at any time. Apply to RICHARD DEY, on the premises, or to JAMES R. DEY, No. 51 Liberty-st., New-York, or to JACOB C. DEY, Fulton-st., Brooklyn.
Fayette, March 1, 1847—3t.

FINE PURE BRED SHEEP FOR SALE.

THE subscriber being about to give up the farming business, offers for sale his stock of Merino Sheep, consisting of 54 pure bred Merino ewes—all with lamb by the celebrated Rambouillet Buck "Grandee," owned by Rev. L. G. Bingham, of Williston, Vt. Also 50 lambs from the above-mentioned ewes, got by the Rambouillet buck "Chancellor," and the Paular "Mt. Defiance," now owned by Merrill Bingham, Esq., of Cornwall, Vt. It is believed by their owner that they are fully equal to any flock of sheep in the country for raising stock. The ewes, aside from raising a lamb each, sheared last June, upon an average, 4 lbs. 4 oz. of well washed wool—perfectly clear from gum. The wool was sent to Samuel Lawrence, Esq., of Lowell, and pronounced by him to be the right kind of wool for our farmers to raise—being the most profitable.

Satisfactory evidence of the blood can be given. Apply to the subscriber at Williston, Vt., or A. B. Allen, 187 Water-st N. Y.
THOS. H. CANFIELD.
March 1—2t.

QUINCY HALL AGRICULTURAL WAREHOUSE AND SEED STORE, BOSTON.

(Over Quincy Market, South Market-St.

RUGGLES, NOURSE & MASON, wholesale and retail dealers in Agricultural and Horticultural Implements, Machinery, and Seeds.

Also manufacturers of the celebrated WORCESTER EAGLE, SELF-SHARPENING, HILL-SIDE, and SUBSOIL PLOWS, and other implements, at Worcester, Mass. As their stock of implements are mostly made either by themselves at their extensive works at Worcester, or by other manufacturers especially for their trade, their assortment far exceeding in variety and quantity any establishment of the kind in this country, and being *sole agents* for the makers of several important implements of much notoriety and usefulness, they are enabled to offer very great advantages and facilities to Planters, Farmers, and Dealers.

To their before extensive assortment of Plows, they have recently added several patterns, embracing new and *important improvements* in form, construction, and fixtures, which adapt them to both shoal and extra deep plowing. Their particular form to take up the furrow slice, and turn it over in the most perfect manner, with the least *power of draft*, leaving the soil in the best possible condition for after cultivation, and production of crops, the acknowledged and unexampled strength and durability of their castings and fixtures, the uniform construction and superior finish of the wood by machinery used only by themselves, are among the peculiar characteristics of their plows.

By the combination of the *Dial Clevis*, recently patented by themselves, and the draft rod, the plow is easily arranged to make *extra deep* or *shoal work*, at the option of the operator.

FIELD, GRASS, GARDEN, FLOWER, and HERB SEEDS, which are raised by the most experienced American and European Growers, particularly for their trade, and can be relied on as genuine and fresh, and will be packed to order, at wholesale and retail, with labels of instruction relative to the time of planting and mode of culture.

Agents for the principal nurseries in the vicinity of Boston and New-York. Guano, Poudrette, Bone Dust, &c.

Catalogues containing descriptions and cuts of their extensive stock of implements and machines; also, catalogue of Garden and Field Seeds, and Grains, embracing directions for their cultivation with general observations, remarks on soils, and fertilizers, their properties and application; and upon the propagation of Fruit and Ornamental trees; the whole comprising nearly 100 octavo pages, may be had gratis on application by mail or otherwise.

Luther Tucker, sole agent at Albany, Nos. 10 and 12 Green-St., and A. B. Allen, for New-York City, No. 187 Water-St.
March 1—2t.

CHOICE VARIETIES OF FRUIT.

BY S. MOULSON,

At the Old Rochester Nursery.

TWENTY thousand trees of the celebrated Northern Spy apple, all of which are root grafted. Those seven to eight feet high, fifty cents each; medium sizes, thirty-seven and a half cents; small ones at less. A discount will be allowed to purchasers of large quantities, for the purpose of selling again. This highly desirable and long-keeping fruit, having been introduced by this establishment at an early period, the proprietor is enabled to offer larger trees upon their own stocks than are usually found; and having been grown from scions of the original bearing trees in this vicinity, parties ordering may be sure of their genuineness.

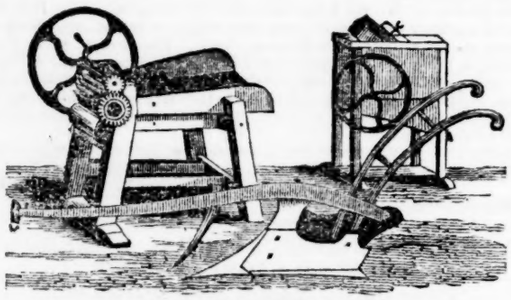
Also, a general assortment of Apple, Pear, Quince Plum, Cherry, Peach, Apricot, Nectarine, Currant, Gooseberry, Raspberry, Strawbery, and Ornamental Trees and Shrubs, which will be properly packed, when desired, for any portion of the United States, Canada, or Europe. Catalogues gratis to post-paid applicants. Orders not accompanied with remittance, must contain reference, which may be to parties residing at Rochester, Boston, New York, or Philadelphia. Also at Montreal, Kingston, Cobourg, Toronto, or Hamilton. S. MOULSON,

March 1—2t. Offiice 36 Front-st., Rochester, N. Y.

FOR SALE.

A FARM of 325 acres, in Fishkill, Dutchess Co. It is partly high limestone land, with some rich alluvial meadows along the Mattewan Creek. The buildings are new and extensive—the fences all good, and the soil in fine condition. Increased production can be obtained from inexhaustible supplies of muck and limestone on the farm. The Hudson river is six miles distant, besides which the villages, mills, and factories, near, furnish abundant market. In productiveness and position, it is one of the choice locations in the country. The beauty of this part of the country, and the variety of its scenery, make it a desirable residence. Address, post-paid, WM. VAN WYCK, Jr.,

March 1—2t.* Fishkill, Dutchess Co N. Y.



JOHN MAYHER & CO.

U. STATES AGRICULTURAL WAREHOUSE,

No. 195 Front-street, (near Fulton,) New-York.

Foundry and Machine Shop 502 and 504 Water-st.

THE subscribers respectfully invite the attention of Merchants and Dealers in AGRICULTURAL IMPLEMENTS to the superior assortment of goods which they manufacture, embracing Plows and Castings of the most approved kinds in use, and possessing all the latest improvements in style, workmanship, and material, among which are the following articles, that can be seen at their warehouse:

Pitts' Corn and Cob Crusher. Price, $40
Sinclair's do.—hand or horse. $30
Fitzgerald's Patent Burr Stone Corn Mill, $60
Sinclair's Cast Plate Corn Mill, $40
Swift's Corn, Coffee, and Drug Mill, $6 to $8
Hovey's far-famed Hay, Straw, and Stalk Cutter;
Sinclair's Hay, Straw, and Stalk Cutter;
Greene's do. do. do.
Mayher & Co.'s do. do.
Langdon's do. do. do.
I. T. Grant & Co.'s Premium Fanning Mill;
J. Mayher & Co.'s do. do.
Boston Centre Draught Premium Plows,
Bergen's Self-Sharpening Plows;
Dutcher's Plows of all kinds;
Hitchcock's do. do.
Freeborn's do. do.
Minor & Horton's Plows, all k'ds;
Worcester Eagle do.
Mayher & Co.'s Eagle improved Plows;
Mayher & Co.'s much approved Plows;
Langdon's Horse Hoe Plows;
Castings to fit all kinds of Plows in use;
Mayher & Co.'s 2 Horse Power, Price, $55
do. do. 4 do. $75
do. do. 2 Thresher, $25
do. do. 4 do. $30
John Mayher & Co.'s First Premium Corn Sheller;
Burrall's Corn Sheller;
Warren's do. do.
Sinclair's Corn Sheller and Husker;
Pitt's Horse Power and Threshing Machine;
E. Whitman's Jr., Thresher and Separator;
Subsoil Plows of different kinds.

Cultivators, Wheelbarrows, Canal Barrows, Store Trucks, Horse and Ox Carts, Mule Wagons, Ox-Yokes and Bows, Hames, Trace and Ox Chains, Road Scrapers, Ground Augurs, Shovels, Spades, Pick Axes, Hay and Manure Forks, Rakes, Hoes, Scythes, Scythe Snathes, Grain Cradles, Crow Bars, &c., &c., all of which will be sold as cheap as they can be bought at any other store in the city, and are warranted.

Gin Gear, Segments, Rag Wheels, &c.

Castings of all kinds made to order. March 1, 1847—tf.

FRUIT TREES FOR SALE CHEAP.

AT the Walworth nurseries, about 7000 thrifty Peach Trees, of the choicest varieties, cultivated in Western New-York, at $15 per hundred, or 18¾ cents smaller quantities. Address, post-paid, at Walworth, Wayne Co. N. Y., T. G. YEOMANS.

March 1—1t.

ISABELLA GRAPES,

OF proper age for forming vineyards, propagated from and containing all the good qualities which the most improved cultivation for over ten years has conferred on the vineyards at Croton Point, are now offered to the public. Those who may purchase will receive such instructions as will enable them to cultivate the Grape with entire success, (provided their location is not too far north.) All communications, post-paid, addressed to R. T. UNDERHILL, M. D. 326 Broadway, New-York, will receive attention. He feels quite confident that he has so far meliorated the character and habits of the Grape Vines in his vineyards, and nurseries, by improved cultivation, pruning, &c, that they will generally ripen well, and produce good fruit when planted in most of the northern, and all the western, middle and southern states.

New-York, March 1—2t.

COLTON'S PATENT PREMIUM BEE-HIVE.

ALL who keep bees, or wish to make money by buying and selling rights for using this hive, are respectfully invited to examine the principles on which it is built, and the advantage which it has over others. It is so constructed that you can enlarge or diminish the room according to the number of bees, and keep the comb continually covered with bees, so that the bee-moth cannot injure them in the least. It also furnishes ample room for all the bees to work at the same time, with boxes so arranged upon each side, that the comb extends from the top of the box down through the apertures to the bottom of the hive, so that they enter the boxes without leaving the comb. By removing the boxes at a suitable time, the bees can be made to swarm within two days, and save the labor of all the bees through the honey-making season. By exchanging the boxes as fast as they are filled they can be prevented from swarming at all. This hive has been in use by the inventor and others, for three years, in which there has been made from 25 to 150 lbs. of pure honey in a season. A cut of this hive may be seen in the December number of the Albany Cultivator for 1846 It has taken the first premirm at the New-York State Fair at Auburn, and at all other fairs where it has been presented. The inventor will be at New-York city through the month of March, where he will wait upon all who may call, and will sell on such terms as will be an object to those who may purchase. After that time all addresses may be made to Aaron Colton, Pittsfield Vermont, except those in the states of Maine, New-Hampshire, Massachusetts, and Vermont, (excluding Rutland Co.,) which should be made to John M. Bennett, of Gaysville, Vt.

AARON COLTON.

Pittsfield, Vt., March 1, 1847—1t.

THE WEST! THE GREAT WEST!

PRAIRIE FARMER,

Devoted to Western Agriculture, Mechanics, and Education.

VOL. VII, 1847.

PUBLISHED monthly at Chicago, Illinois, by JOHN S. WRIGHT, containing 32 large Octavo pages, besides a colored cover of 15 pages, with advertisements, anecdotes, &c., and liable only to single newspaper postage.

JOHN S. WRIGHT and J. AMBROSE WIGHT, Editors.

TERMS—$1 per annum, 6 copies for $5, 13 for $10, payable invariably in advance. All communications must be sent free of postage.

Every intelligent person at the east or south wishes to know, or should wish to know, the condition and progress of the west. Therefore they should take and read the *Prairie Farmer*, which will supply them with more reliable information than they can obtain in any other way, unless they spend hundreds of dollars in travelling.

This is no ephemeral publication, for it has reached its 7th year, and has a circulation of nearly 5000 copies, chiefly at the west, and has at least a respectable standing among kindred publications. The matter is almost wholly original, and a large share is supplied by correspondents, more than 350 in number, from all parts of the west, which makes the paper practical and western in its character; and being published chiefly for home circulation, there is no attempt to exaggerate or deceive. The information can be relied upon as *truthful*.

The SIX BACK VOLUMES, stitched in covers, subject to newspaper postage, and the 7th, as issued, will be sent for $5; and there are no works published which furnish so large an amount of information concerning the west, or its agriculture.

☞ Eastern and southern newspapers giving the above three insertions, (with this note,) in three different months, and sending a number containing it to the "Prairie Farmer, Chicago, Illinois," shall receive a copy one year without exchange.

March 1—1t.

HORSE POWERS AND THRESHERS.

THE attention of farmers is invited to Wheeler's Patent Horse Powers, an engraving and description of which is given in the Cultivator for Feb., 1847. Among the advantages of this power are its compact size and lightness, and the ease with which sufficient speed can be obtained for threshing, without gearing, and consequently greatly lessening the friction. It will be found a great labor-saving machine, as it may be attached to Threshing Machines, Circular Saws for sawing, Straw-Cutters, or any other machine which it is wished to impel by motive power. Price, for single horse power, $75—for two horses $95.

Also, Wheeler's Spike Thresher, with a cylinder of 14 inches in diameter, and 22 inches long, with the concave filled with spikes on the upper side, thus avoiding accidents by preventing stones or other substances getting into the Thresher. Another advantage of this Thresher is, that it scatters the grain much less than many others. Price, $28—with Separator attached, $35. The Separator divides the straw and grain, by a shaking motion which it receives from a crank attached to the Thresher, thus saving the work of one or two men with rakes.

With this Horse Power and Thresher, 200 bushels of oats, or 100 of wheat may be threshed per day, with a change of horses.

The above machines constantly on hand at the Albany Ag. Warehouse and Seed Store, No. 10, Green-street.

Albany, Jan. 12, 1846. LUTHER TUCKER

ATLANTIC GARDEN AND NURSERY,

Smithtown, Long Island, near New-York.

THE subscribers offer for sale at very low prices, a large assortment of Fruit trees, including Apples, Pears, Peaches, Cherry, Quince, Nectarine, Plum, Apricot, &c., of the most approved sorts. Also, the choicest kinds of Gooseberries, Raspberries, Currants, Strawberries, &c., &c.

The assortment of Ornamental Trees, Shrubs, and Herbaceous Plants is now very extensive, including over 10,000 Evergreen Trees, and Shrubs.

The stock of Apples and Pears, containing over 35,000 trees, includes the finest sorts in cultivation.

Orders by mail, or otherwise, will recieve prompt attention, and trees will be packed in the the best manner, and forwarded to any part of the country agreeable to order.

Catalogues sent to every post-paid applicant.

Feb. 1—3t. P. DOANE & SON.

AGRICULTURAL WAREHOUSE.

183 *Front-st., New-York.*

THE subscriber offers for sale an extensive assortment of Farming and Gardening utensils, consisting in part of plows of Freeborn's, Minor's, Horton & Co.'s, Prouty & Mears', and Ruggles, Nourse & Mason's patterns. The Locked Coulter, and Wrought Share Plow.

Corn Shellers, Fanning Mills, Grain Cradles, Corn and Cob Mills, Straw Cutters, of Greene's, Hovey's, Eastman's, and other most approved patterns.

Horse Powers, Threshing Machines, &c. Gin gear, Mill, Horse-power, and all other castings, constantly on hand. Also a general assortment of Brass, Copper, and Iron Wire Cloth, for Paper, Rice, and other mills. Seives, Screens, Riddles, &c., &c.

Persons ordering articles from the subscriber may depend upon having them made of the best materials and in the most workmanlike manner. JOHN MOORE.

New-York, Oct. 1, 1846—6t

TO NEW-YORK FARMERS AND EMIGRANTS.

ONE hundred and fifteen thousand acres Illinois Lands for sale, in tracts of 40, 80, 120, 160 acres, or more, to suit purchasers. The lands are all first rate, and among the very best in the state, and are situated in the counties most densely settled, viz., Morgan, Scott, Cass, Mason, Menard, Green, Sangamon, Logan, Christian, Mason, McLean, Woodford, and Macoupin. To actual settlers every reasonable indulgence will be given as to time of payment. The price from $3 to $5 per acre.

A correspondent of one of the New-York papers, writes respecting this section of Illinois as follows:

"*Beardstown, Cass Co., Ill., Jan.* 10, 1846.

THE RICHES OF THE WEST.—GOTHAMITES ON THE WING.—It is now six weeks since I left the city of Gotham, during which time I have seen considerable of this western country, and I must say the beautiful prairies of Illinois, far exceed what I had anticipated, and this country may truly be called the garden of the world. There is nothing to prevent farmers in this country from getting rich, as the land is the most fertile in the world, and it will produce everything grown in the vegetable kingdom.

"A New England man would hardly believe me if I tell him that some farmers here produce ten thousand bushels of corn, and half as many bushels of wheat in a year, to say nothing of cattle and hogs, of which some raise as many as five hundred head. One farmer told me that he raised the last year 6000 bushels of corn, and it was all produced by the labor of two men only.

"Cattle and sheep feed upon the prairies all winter, as they are seldom covered with snow."

Most of the above lands may be cultivated 100 years or more without manuring, being of the richest alluvial soil. The titles are indisputable, and the lands will be sold at low prices and in quantities to suit purchasers. Letters (post paid) addressed to D. B. AYRES, Esq., of Jacksonville, Ill., or the subscriber, will receive prompt attention. As many persons out of the state have an idea that the taxes are very burdensome in Illinois, we state that they range from $1.50 to $2.00 per annum, on 80 acres of land.

JOHN GRIGG,

Jan. 1, 1847.—6t No. 9 North Fourth-st., Philadelphia

WIRE CLOTH SIEVE AND SCREEN MANUFACTORY.

THE subscriber has constantly on hand a large assortment of the above articles, which he offers at the lowest market prices. D. L. CLAWSON.

July, 1846—10 mos. 191 Water-st., New-York.

P. S.—All kinds of wire work manufactured to order.

GUANO.—200 tons, the balance of the ship Shakspeare's cargo from Ichaboe, in tight casks, for sale in lots to suit purchasers, by E. K. COLLINS & Co., 56 South-st.

The many experiments made this season from this cargo, not only prove the great gain in using it, but that it is at least equal if not superior to any other guano.

Sept, 1, 1846.—tf

NEW-ENGLAND AGRICULTURAL WAREHOUSE AND SEED STORE.

Nos. 51 *and* 52 *North Market-Street, Boston.*

FOR sale at this establishment, a general assortment of Agricultural and Garden Implements—Howard's Improved Patent Cast Iron Plows of all sizes. Martin's improved Eagle and other Plows; Double Mould Board, Side-Hill, Paring, and other plows, in great variety, and of the most approved patterns. Howard's Subsoil Plows, Cultivators of different descriptions; Willis' Seed Sower, (the best in use;) Geddes' and other Harrows of various patterns; Green's Straw-Cutters, Willis' Straw-Cutters, of various kinds and prices; Gault's Patent Churns, Grindstones or Friction Rollers; Cast Iron Field Rollers, (a very superior and substantial article;) Garden Rollers of cast-iron, different sizes; Iron Rakes of every size and variety; Garden Trowels, Syringes in great variety; Pruning and Budding Knives; Pruning Scissors, and Shears in great variety; Grass Hooks and Garden Shears; Garden and Field Hoes of every pattern; Scufflers every size; Pick Axes, Shovels, Spades, Dung and Garden Forks of every description; Hay Tools, including the very best Scythes manufactured in the country, (in all cases warranted;) Hall's and other Hay Rakes, Pitch-forks, Grain Cradles, Horse Rakes, Sickles, Austin's Rifles, Whet Stones, &c., &c.

Also a complete assortment of Chains, viz:—Fence Chains—Trace do—Ox do.—Dog do.—Tie-up do. Hale's Horse Power; Hale's Threshing Machine and Winnowing Mills, Garden Engines, &c.

Also Axes, Hatchets, Bill Hooks, Hammers; Axe, Hoe, and Rake Handles; Ox Yokes, Bull Rings; together with every other article important for Agricultural or Horticultural purposes.

Harris' Paint Mill, the best in use, is also for sale at this establishment.

SEEDS, TREES, AND PLANTS.

The subscribers are enabled to furnish seeds of the purest quality, of every variety of field, vegetable, and flower seed; embracing every variety desirable for cultivation.

Also, Fruit, Forest, and Ornamental Trees and Shrubs, of every description.

☞ Orders promptly attended to. JOSEPH BRECK & Co.

Boston, Sept. 1—tf.

I. T. GRANT & CO.'S PATENT PREMIUM FAN MILLS.

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Junction P. O., Rens. Co., N. Y., Jan. 1.—tf

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March 1, 1847—tf.

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March 1—1t.

CONTENTS OF THIS NUMBER.

COMMUNICATIONS.

Rural Architecture, with plans for a Farm House, by H., ... 73
On Warming Houses by Hot-Air Furnaces, &c., by GEORGE GEDDES 75
Emigration to Virginia—Fairfax County Lands, by AN EMIGRANT, ... 77
Agriculture of Rutland County, Vermont, by H. W. LESTER, 78
Letters from Holland, by Prof. J. P. NORTON—Notes of a Traveller in England. No. III, by P. 79
Culture of Vetches or Tares, by W. H. SOTHAM, ... 84
Transplanting Fruit Trees—Pie Apple, by S. WORDEN—Budding Fruit Trees, by C. R. SMITH, ... 85
Mr. Vail's Premium Cow, by GEO. VAIL, ... 88
Churning Butter, by ANN, ... 90
Experiment in Culture of Indian Corn, by J. HUBBARD—Deep Plowing, by J. L. C.—Charcoal, by J. MOXON—Sulphate of Iron, by F. L. O.—The Cultivator for January, by NORFOLK, ... 91
The Jerusalem Artichoke, by J. R. TODD—To get Subscribers to an Agricultural Paper, by WM. BACON, ... 92
Anthracite Coal Ashes, by EVELYN—Dr. Lee's Criticism, by J. J. THOMAS—Unsuccessful Experiments, by H. A. PARSONS—Broom Corn, by W. R. PRINCE—Recent American Patents, by Z. C. ROBBINS, ... 93
Feeding Stock, by J. R. HOWARD—Benson's Hydraulic Ram, by W. BACON—Suffolk Pigs, by WM. STICKNEY, ... 94
Agriculture of Delaware, by H. L. V.—Virginia Crops, by by M. DAVIS, Jr.—Ribbon Stalk Pea, by W. H. HAYWARD—Heaves in Horses, by J. FUNK, ... 95

EDITORIAL.

The Cheapest and best mode of Building, ... 74
Large Farming on a Small Scale, ... 76
Principles and objects of Plowing, ... 81
On the Culture of Hops, ... 82
Subsoil Plowing—Hessian Fly in Ohio, ... 83
Gardening Operations for March, ... 85
Desultory Hints on Gardening, ... 86
Premium Crops of Vermont 87
Fodder Racks for Sheep—Lunar Influence, ... 88
Mode of Cultivating Premium Crops—Swelling of Grain by Boiling—Milking Clean, ... 89
Soot in Chimneys—Russian mode of using Buckwheat—To boil Salt Meat tender—To cook Vegetable Oysters and Parsneps—To Remove Dust from the Eye, ... 90
Peculiar Growth of Varieties, ... 94
Proceedings of Agricultural Societies, ... 96
Monthly Notices—To Correspondents, &c., ... 97
Answers to Inquiries, ... 98
Notices of New Publications, ... 99

ILLUSTRATIONS.

Figs. 18, 19—Elevation and Principal Floor of a Farm House, 73
Figs. 20, 21—Cellar and Chamber Floor of ditto, ... 74
Fig. 22—Section of a Hot Air Furnace, ... 76
Fig. 23—Mr. Vail's Premium Cow "Lady Barrington," 88
Fig. 24—Fodder Racks for Sheep, ... 88
Fig. 25—Screen for Sifting Coal Ashes, ... 93

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